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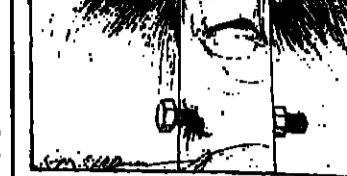
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AUT in a cold climate

If 1982 was a bad year for university teachers' pay, 1983 is likely to be worse. The pay norm established by the Government for the public sector, which may not formally embrace the universities but in fact applies to them with especial rigour because there are no awkward local authorities in the way, is lower - 3 1/2 per cent instead of 4. The Treasury no doubt will take the view that university teachers must be offered even less, because they managed to negotiate a 5 rather than a 4 per cent salary increase this year and as a result received some of next year's rise in advance and also raised the salary thresholds on which any percentage increases are calculated.

To defend this deteriorating position the AUT will have a new and young general secretary, Ms Diana Warwick (a far more competent and experienced trade union official than suggested by superficial impressions) and a membership perhaps bruisingly divided by the politicized wrangling that apparently accompanied her appointment, or rather the non-appointment of other candidates. Nor will the vice chancellors, despite their new appeal to Sir Keith Joseph, and sympathetic allies within the Department of Education and Science be able for a second year to squeeze some more money out of the Treasury for "restructuring".

Secondly, the AUT should play the "solidarity" card. For better or worse the pay prospects of university teachers are inextricably linked with those of all teachers and wider still of all public sector employees. Unpalatable as this may be to some AUT members, it is an uncontested fact. Perhaps the AUT should follow the example of the National Association of Teachers in Further and Higher Education which on salaries keeps a generally low profile and sticks as close as possible to the shadow of the much more numerous school teachers, with good results although polytechnic and college teachers have perhaps less clout than their university colleagues.



Well actually, Maureen, it's all been rather a difficult time. In fact, very difficult indeed. No sooner had we finished than we had the damn painters in. Complete chaos. Complete chaos. I couldn't get near the study for over a fortnight and of course when I did it meant that every single book had to be placed back on the shelves, and you know how I like to have them in pretty strict alphabetical order so that was the very devil of a task.

And then, would you believe it, the day after all that was finally sorted out, the little one, Jessica, went down with whooping cough. Well, you can imagine what that meant; you saw the state I was in when I popped in to collect my mail in August. Virtually four weeks in which I doubt if anyone in the house got a decent night's sleep. Poor Margery was up and down those stairs like a yo-yo. And on top of it all, of course, was the worry that Luke would go down with the same thing, and we'd just have to change the whole six weeks at that new place we'd found in southern Tuscany.

Harvard's common core

In a hypothetical poll to discover the world's best university ("top" might be more in keeping with the vulgarity of such an exercise) Harvard would almost certainly collect the most votes. In some subjects Stanford, Massachusetts Institute of Technology, or Berkeley, or even Oxford, Cambridge, or Imperial College might present a challenge but probably no university could beat Harvard's record of unremitting excellence in undergraduate education, in professional schools, in research.

So in European eyes Harvard's struggle to redefine the purposes and content of a liberal higher education, which has preoccupied the university intensely at intervals of roughly a generation ever since its foundation, must appear a puzzling aberration. Here, after all, the excellence of a university is almost entirely defined in terms of intellectual achievement in academic disciplines, which is regrettably sometimes reduced to the record of research reputation. Certainly there is no reputation to be won by any attempt to redefine liberal education for undergraduates.

Harvard, of course, is not unique among American universities in its peculiar preoccupation. The "Great Books" syllabus of the University of Chicago (another institution with a not negligible academic reputation) was immensely influential from the 1920s to the 1940s. Yet there have been only the faintest of echoes of such an enterprise on this side of the Atlantic. Keele's foundation year has remained an isolated and even beleaguered experiment, while the attempts of the new universities in the 1960s to redraw the map of knowledge in imaginative ways for undergraduates have largely run into the sand.

Why is there such a contrast between America and Europe? A powerful reason must be the different origins of universities in the two continents. All American universities, even Harvard, had populist roots. The Berkeleys and Michigans today were founded as land grant universities, to serve the people. No American university can remain comfortable for long with a form of higher education which denies these democratic origins. All must aspire to some extent to the vision of higher education for the common man in some Copelandish way.

Orthodoxy and obsolescence

It is one of the more striking ironies of current academic life that in an era in which "instantaneous" communication is becoming the norm, it may still take two, three, four or more years for an important academic paper to pass through the system. Speculating on the paradox, many have been tempted, McMurtry-like, to predict the end of traditional intellectual publishing.

Academic dissemination has not admittedly kept pace with technological advance. The staple format remains the limp cover, ocre-covered, or plain white, unadorned, no-look, suitable for stacking in bookshelves and occasional self storage. Microfilm, microfiche, and more recently photo-reduced microprint, have met with considerable resistance outside the audio-visual centre.

Professional mysteries most assiduously "refereed" is noticeably more partial; delays are longer; and doctrinal divides wider. In defence, researchers increasingly distribute "working" copies of manuscripts, establishing intellectual squatters' rights, speeding up the rate of exchange in ideas and guarding against the "market discrimination" of many leading journals. Theoretically daring papers often achieve *shitake* status months and years before actual publication.

However, specialized research has become, like *Critical Social Policy* and the *Journal of Public Policy*, are no longer "academic" in the normal sense, and no longer interest in the sciences, dual publication has had a similar widening effect. Perhaps inevitably, it is the arts journals which have suffered the

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Polys, colleges denied access to extra cash

The decision was given by the Department of Education and Science in a confidential paper for talks last week on the overall RSG settlement, which provides the Government contribution to local authority finances. Its implications for the size of the 1983-4 pool will be discussed at the joint central/local government Expenditure Steering Group: Education next week.

Extra funds are being added to the planned £18.8 thousand million RSG total in recognition of inflation and local authority overspending to make the Government's targets more realistic. It has yet to be decided whether polytechnics and colleges will benefit from the £200m which is to be earmarked for particular services, but the additional £700m, which will remain unspecified, will not be available if the proposals stand.



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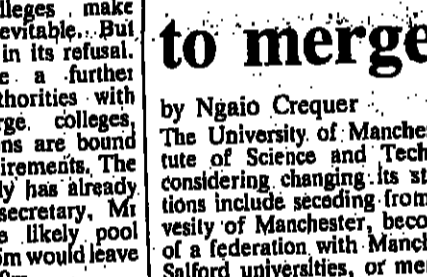
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UMIST considers plans to merge with Salford

The University of Manchester Institute of Science and Technology is considering changing its status. Options include seceding from the University of Manchester, becoming part of a federation with Manchester and Salford universities, or merging with Salford.

The paper, written by UMIST registrar Mr D. H. McWilliam lists five options: ● UMIST to remain as it is, with its own charter and statutes, but with close links with Manchester as its faculty of technology, though separately funded by the University Grants Committee;



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Edinburgh University has produced a poster calendar for 1983 to mark its 400th anniversary. The picture shows the laying of the foundation stone of the university's New College (now Old College) on November 16, 1789. The calendars are available from the university's information office, Old College, South Bridge, Edinburgh EH8 9YL, costing £1.50 or £2 including postage and packing.

SSRC saved but budget cut again

The Government is to impose a second cut in the budget of the Social Sciences Research Council, although the council will retain control of all its current operations including the distribution of postgraduate awards.

A statement drafted by Sir Keith Joseph, Secretary of State for Education, and circulated in the past week, to the Cabinet and senior civil servants and approved by the Prime Minister, makes clear the SSRC is to be reprimanded.

The statement has been redrafted many times indicating the ebb and flow of Sir Keith's views during the last three months. It was to be read as a letter to council today, and officially released in response to a Parliamentary question early next week.

Sir Keith's statement follows the main recommendation of the Rothschild review that the council should "not be dismantled or liquidated." But Lord Rothschild's recommendation that the council should face no budget cuts for three years is not accepted.

Single ministry for all races

The de Lange group was asked to weld the investigations proposals with government, educationalists and the business reaction into suggestions for reform. Sources said the departments of education and training as well as the departments of coloured and Indian education, which fall under the Department of Internal Affairs, will come under the DNE to be responsible for finance, standards, and training.

However, this ministry will have sub-departments responsible for the control of centrally decided policy. So, while it seems to meet demands from businessmen, liberal-minded educationalists and politicians since the 1976 Soweto riots for one ministry, the plan keeps the structure of apartheid education intact.

£15.6m adult agency urged

The Government should create a new adult education agency and fund an officer in every local authority, specifically to serve educational needs of unemployed people. This is the recommendation of an unpublished report currently under consideration by Sir Keith Joseph.

The situation of many unemployed men and women is desperate, speedy educational action is essential, concludes the report by the Advisory Council for Adult and Continuing Education. A clear policy lead from the Government is urgently necessary. Such a lead would mean minimum annual spending of £15.6m described as "very modest" by the report which was commissioned from ACACE by Sir Keith to lead the council.

THE TIMES NEWSPAPERS LIMITED, 1982. Published by Times Newspapers Ltd., 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

London grants policy announced

by Ngaijo Crequer

London University schools which are either merging, increasing their science provision or which have high research incomes have been financially rewarded by the court.

Principals received letters this week which gave details of the London strategy for 1982-83. Colleges traditionally underfunded, Queen Elizabeth College, Queen Mary and Royal Holloway have been given big increases, these respectively of 17, 12, and 18 per cent over the previous year.

Medicine gets a smaller volume cut than expected but some medical schools get only small increases in their grants, such as the Middlesex (3.9 per cent) and the Royal Free (3.4 per cent). In recognition of the "alarm" expressed by the University Grants Committee over the serious position of the Royal Postgraduate Medical School, it receives a large increase of 18.7 per cent although some of this is merely a transfer from the British Postgraduate Medical Federation.

Hirkbeck College also faces badly, with a measure 2.5 per cent rise and the London School of Hygiene does worst of all, with an actual cut (the only school to receive one) of 3 per cent in its grant.

Mr John Akker, deputy general secretary of the Association of University Teachers, welcomed the news that the grant was being used to encourage sensible mergers. "But we doubt whether sufficient money has been made available to encourage them to take place. The Government must provide more."

"Undoubtedly very serious problems will exist in some of the small colleges and places such as the School of Hygiene. Without the £45m now being sought by the vice chancellors to supplement cash limits, London University will face a serious crisis this year."

The court has set aside £850,000 for institutional and departmental mergers, plus a grant of £250,000 to Bedford to ensure a speedy merger with Royal Holloway.

Special "bridging" grants are made to King's OEC (£300,000), QMC (£300,000) and University College (£400,000) which are expected to host transfers in staff and students from other colleges in science.

Committee will cash in on research

by Paul Flather

Barriers to the exploitation of research carried out in universities and polytechnics are being investigated by a powerful new committee which will report directly to the Prime Minister early next year.

A working group with representatives from higher education institutions and from industry has just been set up jointly by the Advisory Council for Applied Research and Development (ACARD) and the Advisory Board for the Research Councils on the initiative of Mrs Thatcher. The Prime Minister believes the country has been generally failing to exploit new research ideas, and also believes that a recovery of British industrial performance will be critically dependent on innovation, and the application of new technology.

Industrialists and researchers are also keen to promote more efficient collaboration, with the former needing to improve productivity, and the latter looking for new sources of finance to compensate for spending cuts.

Mr Henry Chilver, chairman of ACARD, and vice chancellor of

Cranfield Institute of Technology, said the group's main task would be to devise efficient mechanisms to operate between universities and companies. He agreed the subject will be reported much discussed over the years with little major change.

"What we have got to get to grips with is how to exploit our research and of course how we can sell it. There is a general feeling that we have a long way to go on this, even using the resources we currently have to work with," he said.

Fresh interest in the problem has been expressed by both sides in recent months. Sir Austin Bide, chairman of Glaxo Holdings, and the Confederation of British Industry research and technology committee, is known to be keen on the working group's brief, while the official Merison report on university research also strongly recommended a review of the subject.

The working group has been asked to study the current arrangements in the field of research and its application, and in particular ways of dismantling barriers and disincentives hindering closer collaboration be-

tween industry and education.

The eight-man committee, chaired by Sir Alan Muir Wood, a geologist, and member of ACARD, will also identify examples of good practice and investigate arrangements used in other countries. Other academics on the group include Dr Stephen Bragg, former vice-chancellor of Brunel, Dr J. B. Butcher, Middlesex University, and Professor R. Whittenberg of Warwick University.

Letters have been sent to more than 200 companies, professional bodies and research institutes, and all universities and polytechnics including comments by the end of October. A report is expected early next year.

Dr Hastings Banda, life president of Malawi, last week inaugurated the postgraduate residence at the Royal College of Surgeons in Edinburgh.



Temperament should count for teachers

by Patricia Santinelli

Teacher training institutions should ensure that only students who are suitable are awarded teaching qualifications, a report from Her Majesty's Inspectorate advocates.

The report *The New Teacher at School*, published this week, is based on a 1981 survey of 294 newly qualified teachers working in both primary and secondary schools. It says that although most teachers were being satisfactorily trained, a quarter of those in their sample were considered to be poorly or very poorly equipped for the tasks they were given to do. This is at a time when there are considerably more trained teachers available than posts.

Labour pledged against loans

by David Jobbins

A future Labour government would dismantle any loans scheme introduced by the Conservatives. Shadow education secretary Mr Neil Kinnock pledged this week.

It would also reverse the trend towards privatization of higher education and refuse mandatory awards to students at the independent University College at Buckingham.

Labour education spokesmen who offer their support to the strictly apolitical National Education Week pointed out there had been no attempt at the Conservative Party conference to disavow the Think Tank's proposals for a higher education system less dependent on central government funding.

Mr Phillip Whitehead, Labour's spokesman on higher education said that student loans were the first "acceptable" pre-election step towards wholesale privatization.

Mr Frank Dobson, the third member of the Labour education team, was convinced the Think Tank report was only temporarily shelved. "Mrs Thatcher is a grocer's daughter and sheiving has an entirely different meaning to grocers."

On the proposed mixed grants and loans system, Mr Kinnock said: "If it is inaugurated before the election of a Labour Government we would dismantle it."

Mr Kinnock argued that the mixed system favoured by ministers embodied all the disadvantages of grants (mean-testing, limited availability and inadequate amount) with all the disadvantages of loans (disincentives to access, repayment, and the cost of pursuing defaulters).

On Buckingham, Mr Kinnock commented: "There seems to be justification educationally for saying an institution of this description should be subsidised from public funds. Private institutions, where they survive, should be entirely responsible for their own funding."

Mr Whitehead claimed that Buckingham should be seen as a "dry run" for the higher education system

which the Conservatives wanted to achieve.

There was also criticism this week of the Government's "market forces" approach to higher education from the former Conservative Prime Minister, Mr Edward Heath. He attacked not only the loans proposal but the policy on overseas student fees, arguing that education and health were quite separate from ordinary market activities.

Launching National Education Week Mr Clive Jenkins, chairman of the TUC's education committee, repeated the call for a commitment from the next Labour Government to a £1.3 thousand million injection into higher education.

"The Government wants to charge the nation for its birthright - to be knowledgeable and cultured," Mr Jenkins said.

Thousands of students, lecturers, and others brought together under the umbrella of the Education Alliance took part in marches, rallies, demonstrations and other activities in National Education Week. It was clear that many regarded privatization of higher education as a real threat, with student loans at the forefront.

Mr Neil Stewart, president of the National Union of Students, challenged Sir Keith Joseph's assertion that loans would increase student choice. Speaking during a NUS/THES debate on student financing, he also questioned the effect on the housing market of graduates leaving college with a £12,000 "education mortgage".

"No one in their right mind is going to extend a home loan to anyone who is already up to their ears in education," he said.

Professor Gareth Williams, director of the Leventis research programme, suggested a reorganization of higher education with two-year ordinary degree courses. The option of additional modules for special needs could be financed through loans or from industry, he said.



Death wish: Diane Darby, a third year BEd student at Thames Polytechnic rises out of a coffin on the steps of the Department of Education and Science in London to deliver a letter protesting over the threat to 14 teacher training departments and colleges.

Boost for new technology

Hard-pressed computer science departments will benefit if the Government implements recommendations in a new Department of Industry report on advanced information technology.

The report, from a committee chaired by Mr John Alvey of British Telecom, calls for Government backing for a five-year £350m programme to develop new computer technology.

At least £60m of the total, provided entirely by the Treasury, would go to academic departments of electronic engineering and computer science. Around £20m would be for teaching posts and £40m for research.

Ironically, the report comes shortly after a delegation of professors and lecturers met Secretary of State

SDP urges education and training merger

by Karen Gold

A Social Democratic government would amalgamate the Department of Education and Science and the Manpower Services Commission as the key to a policy of breaking down artificial class barriers between education and training. The SDP's consultative conference in Cardiff heard this week.

Mrs Anne Sofer, an SDP Greater London councillor, emphasized that education was central to economic and industrial progress and therefore to the party's political platform: "We must look urgently to the damage which an over-academic curriculum is doing" she said.

Measures towards this would include a considerable strengthening of in-service teacher education, the restoration of cuts in adult education - although current cuts in higher education and particularly the university sector would not be totally restored, she said - and a common, though initially means-tested, maintenance grant for youngsters on secondary or tertiary education, appeared in the SDP green paper on education whose four principles - quality, accessibility, equality and responsiveness - were the foundations on which Mrs Sofer said her speech was built.

But subsequent speakers seemed more at home with her speech than with the paper. Ms Sue Shipman, a past president of the National Union

of Students said: "What we really need to do with this paper is to scrap it and start again from the principle that what we need is a continuing education system and not a system increasingly restricted to those who have the ability to pay for it."

Ms Jackie Sauek, a current member of the NUS executive and representing the said 4,000 SDP students whose views had been excluded from the policy committee which drew up the paper said: "We aren't asking for any special consideration, we are merely asking that the consultative conference pay as much attention to the views of the consumers of education as to those whose job it is to carry out the educative process."

Several speakers called for wider access to the education system for people from different social and racial backgrounds and age groups. Mrs Margaret Sharp, Lewisham, said: "I felt that continuing education was an afterthought."

Mr Tom McNally, SDP MP for Stockport South, and education spokesman in the House of Commons promised that an SDP administration would not have a Treasury-led education policy as the Conservatives did.

But, he warned: "It's no use simply saying we are going to have a radical education policy, based on Labour's in a free-spending programme... we have got to make sure that our promises to people match the resources."

NELP lecturers claim closures are unnecessary

by Patricia Santinelli

Lecturers at North East London Polytechnic, whose teacher education is threatened with closure, claim there is no reason to shut institutions as there will be 12 per cent more teacher trainees by 1988.

The polytechnic's National Association of Teachers in Further and Higher Education branch has produced figures based on the Department of Education's statistics which show that the number of students in both the university and public sector will have risen from 30,147 in 1983 to 33,824 in 1988.

Their calculation takes drop-outs into account. It is based on the fact that although by 1985 there will be 2,450 fewer postgraduate entrants, there will be 950 more BEd entrants. They argue that since BEd courses are three times as long as PGCEs, the number being taught will have increased.

The Nafhe branch says that their figures and the implication were confirmed by DES which said the real reason for closures was the need to cut staff as institutions had under-recruited by 2,000 students in 1981.

The DES denies confirming these figures. It says NELP's figure are wrong because they include the unversities, while the DES's own rationalization is limited to the public sector. On this basis it says there is a reduction from a total of 26,650 students in 1981 to a total of 25,900 in 1985.

Post office raiders had spent grants

by Olga Wojtas

Three students at Napier College in Edinburgh who admitted turning to armed robbery because their grants had run out were this week sentenced to a total of 14 years.

A defence counsel said the students had been discussing their lack of funds in a pub when they had the idea of robbing a post office.

Steven Burrow aged 21 of Royal Park Terrace, Edinburgh, Alan Edwards, aged 18 of Applecross, Wester Ross and William Gillespie, 19, of West Calder, West Lothian, stole almost £2000 from a post office after threatening to shoot a customer if the money was not handed over.

The customer, a 76-year-old man, had since died. Burrows and Edwards carried out another armed raid, stealing almost £7,000 in money and stamps but were captured after trying to rob a third post office, the court heard. The gun used was a replica, and not dangerous.

Burrow was jailed for six years. Edwards was sentenced to five years detention in a young offenders institution, and Gillespie to three years detention.

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The academics' delegation has not yet had a reply from Sir Keith, but the Alvey report suggests that the Department of Industry will be pressing for more money from computing research and teaching.

£15.6m adult agency urged

continued from front page

Sir Keith's predecessor Mr Mark Carlisle.

With stated Government support, a public campaign modelled on the 1970s would be co-ordinated by the new agency, whose eventual functions would include exchange of information, encouraging experiment, monitoring, providing training and linking up the new local authority adult education officers.

The report envisages at least one of these in every local education authority. Since it is unlikely to have resources to fund them, ACA-CE suggests they be appointed through the agency, and be responsible for an inventory of local facilities, developing a local counselling service and building up a programme of activities.

Croydon may sack staff

Another education authority is preparing to sack lecturers and offering their jobs back with longer teaching hours, according to the lecturers' union.

The executive of the National Association of Teachers in Further and Higher Education has decided to instruct its 280 members at Croydon College to continue to working evening class contact hours if the authority tries to impose new ones.

A report to the borough education committee proposes an extra two hours a week teaching for lecturers at the college, bringing class contact up to the maximum laid down by a national agreement. It also wants to reduce the proportion of senior posts and introduce other measures designed to cut the college staff from 371 to 324.

Officially the plans are "still under investigation".

The union has fought a long battle with the Labour-controlled Manchester education authority against similar proposals to increase class contact hours up to the maximum.

Stirling hooks £40m computer science park

Stirling University, one of the worst victims of the University Grants Committee cuts, is to gain a £40m science park and a new chair in computer science.

The American microprocessor company, Wang Laboratories, is to build a manufacturing plant on the Stirling campus to develop computers and office automation equipment. The project will create more than 700 jobs in Scotland's Central Region, where a large number of jobs have been lost over the past two years. Central Regional Council is to fund a chair of information technology for an initial 10 years period "as an incentive to encourage this development and others".

Students suffer from slow secondhand book market

London students who take last year's unwanted books to Dillon's University Bookshop are being turned away because the shop's secondhand department has no money to buy new stock.

Staff are permitted to offer prospective sellers credit in the department for their old books, but only if they can find volumes they want on the shelves for exchange.

FE proposals backed by Strathclyde

Strathclyde Regional Council is to back radical proposals for a comprehensive further education system throughout the region.

A new report urges schools and further education colleges to work together in education and training for the over-16s.

The *Strategy for Post-compulsory Education and Training* written by a group of councillors and officials, adds that staff would have to move between the two sectors to achieve the most effective flexibility.

But it recognizes there will be difficulties in using surplus school accommodation for vocational courses "as long as the profession insists that teaching in a secondary school should be carried out by a registered secondary teacher only".

Prize winner

Dr John Vane of the Wellcome Foundation in London was awarded a third of the 1982 Nobel Prize for Medicine this week.

The prize, shared with two Swedish researchers is for work on prostaglandins, which regulate many of the body's responses to stress and sickness.

OU goes foreign for first time

The first attempt by the Open University to cater for foreign students in their home country has been launched in Brussels with the help of the British Council. Four OU courses were offered to British nationals there last year, but now the number is to be increased to 10 and extended to all Brussels residents.

More than 200 people (mostly British) attended an open day run by the university in the city last week. A request from a group of Britons living in Luxembourg for a similar service there was made during the day.

Virology extension

A £450,000 extension to the University of Glasgow's Institute of Virology was opened last week by Sir James Gowans, Secretary of the Medical Research Council.

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Opponents to CND affiliation ponder over peace formula

Opponents of the decision by the college lecturers' union to affiliate to the Campaign for Nuclear Disarmament are carefully studying an apparent peace plan put forward by the union executive.

But they are likely to demand further detailed clarification before they feel able to call off their campaign for a conference to seek a referendum on affiliation and the rule change which made it possible.

The executive of the National Association of Teachers in Further and Higher Education, while remaining opposed to a special conference and referendum, has conceded that the views of the union's 74,000 members should be canvassed in the run-up to next year's annual conference.

They have called for votes in all the union's 800 branches in the first two months of 1983 to provide the basis for debate on the issues in

Opponents to CND affiliation ponder over peace formula

Blackpool next May. Leaders of the campaign for a special conference were not prepared to talk publicly this week. But it was clear they wanted convincing that the consultation procedure put forward by the executive was watertight before they agreed to stop collecting the 6,710 signatures needed for a special conference.

One said: "We have to be sure we have got something concrete out of this before we tell people to stop collecting signatures."

The aim of the executive motion, which was supported by right-wingers leading the requisition drive, is to obviate the need for a special conference. This many members of the executive regard as divisive, potentially expensive and a diversion from the salaries policy to be debated on December 4. The resolution was carried. Bitterness among members, 11

OU goes foreign for first time

The first attempt by the Open University to cater for foreign students in their home country has been launched in Brussels with the help of the British Council. Four OU courses were offered to British nationals there last year, but now the number is to be increased to 10 and extended to all Brussels residents.

More than 200 people (mostly British) attended an open day run by the university in the city last week. A request from a group of Britons living in Luxembourg for a similar service there was made during the day.

Prize winner

Dr John Vane of the Wellcome Foundation in London was awarded a third of the 1982 Nobel Prize for Medicine this week.

Virology extension

A £450,000 extension to the University of Glasgow's Institute of Virology was opened last week by Sir James Gowans, Secretary of the Medical Research Council.

The building, which was paid for by the MRC, was finished in July, and strengthening links between the Council's Experimental Virus Research Unit and the university's department of virology.

FE proposals backed by Strathclyde

Strathclyde Regional Council is to back radical proposals for a comprehensive further education system throughout the region.

A new report urges schools and further education colleges to work together in education and training for the over-16s.

The *Strategy for Post-compulsory Education and Training* written by a group of councillors and officials, adds that staff would have to move between the two sectors to achieve the most effective flexibility.

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Students suffer from slow secondhand book market

London students who take last year's unwanted books to Dillon's University Bookshop are being turned away because the shop's secondhand department has no money to buy new stock.

Staff are permitted to offer prospective sellers credit in the department for their old books, but only if they can find volumes they want on the shelves for exchange.

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Carter leaves steering group

by Paul McGill

Sir Charles Carter has carried out his threat to resign from the steering group planning the merger of Ulster Polytechnic and the New University of Ulster after failing to wring any concessions out of the Northern Ireland Education Minister Mr Nicholas Scott.

Sir Charles, former vice chancellor of Lancaster University and now chairman of the Northern Ireland Economic Council, said in a statement that he had gladly accepted the invitation from NUU to serve on the group since he saw the possibility of the creation of a new and exciting type of higher education institution.

"However, I did not then know that the steering group had committed itself to considering internal candidates for the post of vice chancellor before reaching any clear idea about the nature of the institution. As soon as I was informed of this, I decided that I could take no part in a procedure with which I am in fundamental disagreement," he said.

As a result, Sir Charles withdrew from the steering group and asked Mr Scott saying that "to proceed to consider the application of a vice chancellor, looking first at internal candidates, when (beyond a most general statement of powers) the nature and purpose of the institution over which he is to preside remains largely obscure, is a proceeding so contrary to commonsense that I would wish to have no part in it."

He said that he would only accept the appointment if the proceedings for interviewing candidates were altered.

"The committee should carry much further the serious consideration of the nature of the institution which it is trying to create, and that therefore the appointment of a vice chancellor should be made by proper open procedures," he said.

Mr Scott replied expressing surprise that Sir Charles felt so strongly on these points.

The minister noted that the chairman of the steering group, Sir Peter Swinnerton-Dyer, agreed with him that they should look for the earliest possible involvement of the future head of the new institution. And he made clear that the steering group would not change course at this stage.

NUU regretted the loss of its second nominee on the committee following last month's controversial resignation of Dr Peter Foggett.

But it fully supported Sir Charles' reason for doing so and in particular his insistence that the nature of the new institution should be made clear before a vice chancellor is appointed.

"When a person of Sir Charles' eminence finds himself unable to serve as a member of the steering group it must bring into question the proceedings of the group and the minister's role in them," added the university.

There has been an angry reaction from campus unions to the news that only the two heads of the institutions, Mr Derek Birley and Dr William Cockerill, are being invited to interviews for the job of vice chancellor in London next Thursday.

Colleges told to work within MSC scheme

by Patricia Santinelli

Colleges are advised to work within the Youth Training Scheme rather than try to get a better financial deal from the Government with the threat of non-cooperation.

The advice comes from the Association of College of Further and Higher Education working party which was set up to respond to the Manpower Services Commission Youth Training Scheme due to begin in 1983.

The association says it is aware that costings for further education will be much tighter, because more young people are expected to participate in the scheme even though there will be no extra financial resources.

"But we consider the work to be far too important and we believe the colleges should participate and work within the scheme to improve it, while at the same time seeking clarification as to the exact mode of funding courses," the association says.

It admits dismay at the fact that the educationists' perception of the needs of young people are in danger of being subordinated to those of the MSC. But it says a refusal to participate in new schemes for this reason could only result in a loss of ability to contribute.

"On the contrary colleges will have to demonstrate that because the Department of Education and Science is held in low esteem in Westminster there is no parallel weakness or lack of ability to deliver in the colleges," ACFHE says.

It says the colleges will welcome the establishment of a Quality Assurance Group to oversee the scheme, but stresses that one task of the group will be to define urgently the interrelationship of the new scheme and mainstream further education.

"There will need to be a very carefully guided input from further education to ensure that there is compatibility with, for example, the work undertaken in colleges under the auspices of the Technical Education Council," the association says.

Responding to the criteria laid down for programme acceptability, ACFHE says that the longer the period spent in college by youngsters, the greater the advantage to the individual and the employers.

It also argues that too much emphasis is put on immediate work experience at a time when the latter is not thriving. It believes that further education colleges provide a valuable and probably undervalued bridge between education and work.



Students of horticulture working at the Botanical Gardens, Kew, set off on the annual clog and apron race run along the 375 yards of the Broadwalk. Third-year diploma student David Francis won the race, which has been a feature of Kew for some 60 years. The origins of the event are uncertain, but it is believed to have been established in the 1920s because of a lack of sport and entertainment.

Oxford Union fights off Teacher takeover bid

by David Jobbins

The financially beleaguered Oxford Union is resisting a plan from students which they claim would put the historic debating society on a firmer footing.

Faced with a £20,000 bank overdraft, £85,000 owed to McAlpine, the building contractors for building work, and repairs estimated at £200,000 needed to the library roof, the union is to launch a new appeal for funds.

But its president, Mr Christopher Wortley, this week rejected as "impractical" proposals to turn the union building into central facilities for Oxford's 12,000 students.

The plan has been put forward by an Oxford University student union working party and its leaders are now anxiously waiting to assess the reaction of junior common rooms to the suggestion that they should finance what is bound to be regarded as a radical break with tradition.

Already Exeter College has rejected the plan by 88 votes to 14, and OUSU president Mr John Grogan confessed he was disappointed. But he hoped other JCRs would meet over the next few days to adopt a different approach.

The student union suggests that its proposals would liberate OUS from the problems of running and financing its building, to concentrate on continuing purely as a debating society.

Bars and other facilities currently available to union members at £60 a year would continue to be an offer.

by Olga Wojtas
Scottish Correspondent

New regulations for teaching in England and Wales will bar large numbers of Scottish-trained teachers from teaching south of the border.

This reverses the historic situation of English teachers being barred from teaching in Scotland because their qualifications did not meet the stringent Scottish requirements, while virtually all Scottish teachers were qualified to teach in England.

The new Department of Education and Science regulations state that after August 1984, new teachers must be graduates with an O level in English and maths.

This will bar all Scottish primary diploma holders, who form around 80-90 per cent of the primary output from Scottish colleges of education, secondary diploma holders, and many secondary graduates, including honours graduates, since an O in mathematics is not a prerequisite for entry to Scottish colleges and universities except in some subjects.

It is not yet clear whether the new regulations will affect Scottish teachers who have qualified before August 1984. Clarification is being sought from the DES, but it is feared that unless teachers have taken up posts in England before that date they will fall foul of the ban.

Scotland's General Teaching Council heard of the DES decision last week, and its registrar, Mr James Miller, said many Scottish teachers would find it very hard to believe.

However, Mr Keir Bloomer, deputy general secretary of Scotland's largest teaching union, the Education Institute of Scotland, blamed the Scottish Secretary for refusing to back an all-graduate teaching profession.

"The ideal of an all graduate profession has been accepted by the GTC, EIS, education colleges, and local authorities, but they have insisted on the primary degree being a four year course, comparable to other Scottish degree courses."

"The process has stuck in the mud because successive Scottish Secretaries have refused to act," said Mr Bloomer. "The lead which Scottish education enjoyed has completely evaporated. For the first time in 400 years Scottish education is being publicly branded second rate and under qualified."

But Mr Bloomer stressed that virtually nothing had changed in the matter of qualifications. "This is what is so inexcusable. Many English degree courses are no better and in some cases significantly inferior to the Scottish primary diploma course, but because of continuing inaction by the Scottish Secretary, people who are perfectly well qualified will be unable to take up future employment in nine tenths of the schools in Britain, which is a desperate situation."

The GTC also heard that only a third of teaching posts are being filled by new graduates, with the majority being filled by married women returning to work.

Dr Tom Bone, principal of Jordanhill College of Education, said there was no objection to married women returning to teaching, but the supply committee felt that two thirds of posts should go to new teachers. "The reverse has taken place. It is unfortunate for the young teachers because if they do not get a job and a chance of completing their probation then they will probably never teach," he said.

University technicians get 5.5%

by David Jobbins

The vice chancellors' financial worries worsened this week following a 5.5 per cent arbitration award to 20,000 university technicians.

A report from the Central Arbitration Committee, whose findings are binding on both parties, says that the award should be backdated to April 1 1982. It adds about £2.5m to the annual pay bill.

It recommends that the lowest salary should be increased from £3,921 to £4,137, and the highest from £10,785 to £11,378. Apprentices are awarded only 4 per cent, raising a 16-year-old's pay to £2,897 and a 21-year-old's to £4,473.

The vice chancellors anticipated arbitration findings well in excess of the 4 per cent cash limit. They warned Sir Keith Joseph, Secretary of State for Education, that they faced a £45m deficit largely because of the knock-on effect of this year's salary settlements.

This week clerical and secretarial staff also argued their case for a 12 per cent increase in front of the CAC. They want the increase distributed half as a flat rate lump sum and half as a percentage increase on each salary point.

They are also seeking a shorter working week and longer holidays - claims rejected by the CAC in respect of the technicians.

University computer staff are also due to go to arbitration with a hearing scheduled for next month.

Dr Albert Sloan, chairman of the vice chancellors' committee, appealed in his letter to Sir Keith for a cash limit in the next round which would permit university employees to receive pay increases comparable with those in other areas of the public sector.

"It is essential that cash limits are drawn so as to permit realistic pay negotiations with all categories of our staff, which must take into account what has been lost this year," he wrote.

"Between us we must find a way of ordering the affairs of universities which does not lead to a progressive decline in the conditions of employment of our staff relative to that of other public sector employees."

The Treasury announcement of a 3½ per cent pay element for the next round will not have encouraged vice chancellors that ministers are prepared to meet this aim.

LSE gets a new look

The London School of Economics has had a facelift as a gift from a private benefactor.

Students and staff returning after the summer vacation were surprised to find the grey stone of the school's buildings on either side of Houghton Street off the Aldwych, transformed to an attractive cream colour.

The benefactor wishes to remain anonymous. But the students union believes it is a member of the court of governors, hired an architect and contract workers to complete the clean up for the beginning of term.

Although the school would not say how much the operation cost Mr Tony Donaldson, secretary of the students' union was told the sum was £30,000.

"This is quite clearly the sort of project we couldn't have undertaken from our own resources," said the LSE's information officer Miss Shirley Chapman.



Scottish artist Kate Whiteford this week took up the post of artist in residence at St Andrews University. The first exhibition of her work will be at the university's Crawford Centre from November 5 to 21.

Senate erred, say architects

Bristol University architecture department has accused the senate of an error of academic judgment in approving a decision to close it.

It has also challenged the financial reasons for closing it and replied to points taken up in the Kendrew report. This failed to take any decision on the future of the department but said the university must decide.

The committee under Sir John Kendrew was set up by the university court to resolve the issue after the senate, the council and the court failed to agree. All this week faculty bodies have been discussing its findings and their resolutions will go to the senate later this month.

According to a paper produced by the architects, the department has already shrunk to the size proposed earlier following voluntary redundancies. In doing so it has suffered a greater percentage reduction than most departments.

The paper refutes a claim in the Kendrew report that it would be difficult to attract an outstanding professor to head it. It quotes a long list of distinguished architects, painters and critics, who support the Bristol department.

"The Kendrew report said if the department was continued it would cost the university £300,000 a year. According to the department, concentrating it in one place by vacating two sites would reduce the cost to £232,000. Income from overseas students would reduce this to £190,000, which is about half a per cent of the university's £36m budget."

The paper also notes that in the last five years, during a severe recession in the construction industry, only one diploma graduate has failed to find a job within six months of leaving.

The department's external examiners wrote to Sir John Kendrew, president of St John's College, Oxford, to say the department was among the nine or ten best schools in the country. "It are therefore persuaded that such an important and valuable centre should be destroyed," this year's review of the work of the school showed in fact that the standard was anything higher than last year and we are thus confident that the school should continue successfully even if it were to be reduced.

Social strata 'needed'

Big research projects based on large-scale data collection and samples, as well as exhaustive analysis, should be carried out on the subject of social stratification, according to a new report.

The Social Science Research Council report argues that research on social groups has been one of the strengths of postwar British sociology, and should be supported despite the economic constraints.

Dr Howard Newby of the sociology department at Essex University says in the report that it is possible to identify a "prevailing tradition" of research in the area. But new developments in the 1970s, particularly the recession, demanded that a new set of issues be investigated.

Dr Newby says it is invidious to cite examples of the "outstanding and productive" work in the field, but he mentions the Oxford University mobility studies headed by John Goldthorpe, the Cambridge University stratification studies, and work on poverty by Professor Peter Townsend, now at Bristol University.

The SSRC asked Dr Newby in March 1980 to produce a report on the state of research into social stratification and indicate areas the council should be actively promoting. The report will now go to the new social affairs committee for consideration.

The central recommendation is for a research initiative to look at the economic recession and sociological change, including studies into the effects of recession on patterns of inequality, of the division of labour

BMA to start students group

A national organization for medical students will be launched next week by the British Medical Association.

The group will probably be restricted to the BMA's 5,000 associate members, and the association will cover the initial running costs.

The secretary of the Hospital Junior Staffs Committee will service the students' group, which will concern itself with conditions of work in hospitals, rather than student politics or the content of courses at medical schools.

A BMA official explained that the National Union of Students negotiated with the Department of Education and Science over medical students' grants and the length of courses. But the NUS had poor contacts with the Department of Health, which presided over hospitals.

For example, there was no national agreement on contracts for students working as hospital assistants because there had been no body for the DHSS to negotiate with.

The group is also likely to be concerned with hospital accommodation for students, career guidance, and health service plans for medical staffing.

The inaugural meeting will be at BMA House on October 23, and will set up an executive committee which will probably meet twice a year. There will also be two non-voting student observers on the Hospital Junior Staffs Committee, and two junior doctors.

Newcastle's boat comes in

The University of Newcastle's archaeological unit is to excavate a South Shields site which is believed to contain a Viking boat.

Reports of the boat have been circulating in the area for many years. In June, however, a local magistrate reported a find made in 1840 and reported at the turn of the century but Mr Donkin is convinced that he knew it was there, 15 feet below a lane between two South Shields streets. His information came from a librarian who has since died who claimed to have seen the timbers of the boat when a trench was opened for a sewer early this century.

There is no evidence to support Mr Donkin's story but research in the borough engineer's records has confirmed that a sewer was laid in the early 1900s. His story could be a confused version of a find made in 1840 and reported at the turn of the century but Mr Donkin is convinced that he knew it was there, 15 feet below a lane between two South Shields streets. His information came from a librarian who has since died who claimed to have seen the timbers of the boat when a trench was opened for a sewer early this century.

A property firm which is developing the site has agreed to do the mechanical excavation work for the university and a group of archaeologists will take over.

Colleges urged to spread out experiments

Colleges should spread experimentation throughout the institution, rather than limit it to one department or individual, says a Further Education Unit report published this week.

The report, *Promoting Curriculum Innovation*, which describes the background and future possibilities of the FEU experimental colleges project says the board was disturbed to find that the majority of applications for funding came from single departments, and were often centred around one individual.

It recommends that some colleges should play a more general experimental role but at the same time warns that this has two obvious dangers.

"The ivory tower complex needs to be avoided, and this requires the colleges to be identified by the rest of the system as typical rather than atypical with respect to clientele, problems and staff," the report says.

Secondly, the report points out that such colleges may become too closely identified with the FEU. The solution would be for each college to earn its designation by consistently producing well monitored, good quality useful projects, rather than working on the assumption that all it has to do is ask for FEU support and it will be forthcoming.

The report stresses that final approval for experimental projects in 1982 was only granted to 20 institutions out of some 180 proposals not because of the low standard of applications but because of the limited funds available.

The FEU plans to spend some £250,000 over the next three years on the approved 20 projects which broadly cover the fields of computer appreciation and new technology - this receives the biggest share of funding - continuing education and open learning, special needs, vocational preparation and basic skills and other developments.

In its advice to other institutions planning to apply for funds, the FEU particularly emphasizes that local education authority and college management support is essential and that it is particularly interested in inter-colleges and intra-college innovations. Listing other criteria, it points out that applications for funds should range between a few hundred pounds to a few thousand and should include if possible some additional input from the applying body.

Science studies face dismal future

Spending cuts have not hit science and society courses as badly as feared. But the Council for Science and Society's science studies committee, set up to review the overall effect of the cuts, still says the prospects for the future are dismal.

A letter to *The Times* in January, signed by a number of leading academics, estimated that 35 academic posts were at risk. However the 45 institutions which responded to the committee have only lost 15 staff in science studies.

An assessment produced for the committee by Professor John Ziman, now at Imperial College, London, points out that this takes no account of the rundown that has already taken place in some institutions, or of the likely future prospects.

The document stresses that the loss of six out of seven academic posts in the school of science and society at Bradford University means the end of one of the few undergraduate courses in the field. It de-

Science studies face dismal future

scribes the ending of two out of five posts in the department of the history of science and technology at the University of Manchester Institute of Science and Technology as a "serious blow".

In addition, the survey showed that most academic groups in the area were very small, with three or less permanent staff, this makes it very vulnerable to accidental losses, the document says.

However, the reaction to adversity may have its positive side. Committee members point out that their initial meetings established that academics teaching and researching in science studies had much in common.

The committee has already built on this common interest by drafting a statement of the overall value of science studies. It will now go on to produce a more detailed examination of the contribution of the separate disciplines - sociology, history, philosophy, politics and economics of science.

"The initial statement says that science studies ensure scientists and engineers appreciate the conceptual foundations of their disciplines and their interaction with society. And they can give humanities, social science and education students an informed view of the nature of science, technology and medicine. The document suggests."

EDUCATION AND TRAINING FOR EMPLOYMENT in the 1980's

On July 2, the Times Higher Education Supplement published a special six page feature on several facets of the New Training Initiative. Included were articles by Geoffrey Holland, the Director of the Manpower Services Commission, Mick Farley of NATFHE and Claire Short of Youthaid and others. Reprints of the feature are now available at a cost of 40p.

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North American News

Quebec loth to abandon plans

from Peter David

QUEBEC CITY The crisis in higher education spending reached Quebec later than the rest of Canada but it has arrived with a vengeance. Quebec's universities, emerging from a golden decade of rapid expansion, are facing an austere and uncertain future.

Over the last 12 years Quebec has known little except growth. More than 40 pre-university colleges have been built and their enrolments are growing at between 5 or 6 per cent a year. The multi-campus University of Quebec has expanded every year since its founding in 1969.

Three years ago the money suddenly started to run out. An unmistakable signal of the changed mood came last spring with an unusually forthright report by the Council of Universities, the traditional soft-spoken quango which advises the government on higher education.

In it the council warned that the cuts implemented by the provincial government since 1979-1980, and extra cuts forecast for the years to 1985, could result in a 20 per cent reduction in spending per university student over five years.

It added: "The cuts have touched the essential activities of the university and introduced serious imbalances between different institutions, imbalances which will be difficult to correct and which constitute an obstacle to collaboration."

Yet Quebec's government appears unwilling to abandon any of the ambitious objectives it has set itself in higher education and which are linked in the eyes of the Parti Quebecois with the province's programme of nation building.

Last week, for example, it unveiled plans to create its own biotechnology research establishment, and a month ago it became the first of Canada's provinces to appoint its own science minister responsible for developing an independent science policy.

More crucially for the universities, the government has steadfastly refused to allow its reductions in university spending to halt the continuing expansion of student numbers - despite the sharp drop in spending per student which is bound to follow.

The government's bullish attitude was exemplified in a landmark speech last year in which Mr Camille Laurin, the minister of education, outlined a development policy for Quebec's universities in the 1980s.

Urging higher education to cling to its "great objectives" of accessibility and democracy - which had dominated policy during the 1970s - he also enunciated a far-reaching agenda of new goals for the coming decade.

Quebec still needed to strengthen its research work and graduate studies, shift more students from part-time to full-time courses and increase the participation rate of the French-speaking population, he said.

To many observers in the universities, Mr Laurin's belief that it is possible for an impoverished higher education system to advance simultaneously on so many fronts without damaging quality resembles wishful thinking. But the minister and his senior officials insist that it is possible.

The government's optimism rests on a conviction that the province's universities could increase their productivity dramatically, if they agreed



Camille Laurin outlined policy

to embark on a comprehensive programme of reform and rationalization. The scope of this programme was suggested by Mr Laurin last year in a passage which has become a sacred text in the education ministry.

"The universities must reassess their activities, make choices, suppress some structures or programme, regroup resources, share some areas of development between each other and with other educational institutions, engage in new collaboration, all the time safeguarding our university system's equilibrium."

"They must, if I can put it this way, do better and more, but with resources which will no longer grow at the same pace."

In the year that has passed since Mr Laurin's speech, however, there have been no significant instances of universities agreeing to merge courses or eliminate duplication.

Quebec's universities have a long tradition of autonomy and independence. The English and French universities developed in virtual isolation from each other and the province does not possess any powerful central machinery capable of forcing the universities to move down the path indicated by the education minister.

The nearest Quebec comes to such machinery is the Council of Universities, which is required by law to advise the government on its higher education policy. The council traditionally has been empowered to review new course proposals and recommend that those it rejects should receive no government subsidies.

Last April, Mr Laurin appealed to the council to extend its course reviews to cover existing courses, but so far it has shown no sign of being prepared to assume a strong planning role. It is still re-establishing itself after a traumatic confrontation with the Ministry of Education two years ago when it asked for more executive and administrative powers.

It received such a sharp rebuff on that occasion that its director and many senior personnel resigned. But a second reason for the unwillingness of the universities to embark on the Laurin programme of reorganization is that they are waiting to see how the ministry's own financial policy evolves.

In recent months the ministry has begun to revise the formula it uses to distribute funds between the institutions. In previous years universities received grants based largely on their existing income with minor adjustments to reflect increases in enrolment.

Another proposal decided upon during the Washington, DC meeting would make "satisfactory progress" towards a baccalaureate degree a prerequisite for varsity competition. The group also agreed to urge a NCAA special committee to urge a freshmen ineligible for varsity competition in "high pressure sports" in Division I, the most highly competitive athletic division.

Athletes face tougher entry tests

scores on standardized tests and a minimum grade point average in a "core" high school. The National Collegiate Athletic Association (NCAA), the group which oversees college athletics, currently requires athletes to have a 2.0 minimum grade point average on a 4.0 scale. NCAA rules do not require consideration of standardized test scores or a specific set of high

The formula enabled well-established institutions like McGill, Montreal and Laval to protect their enrolment per student by keeping numbers constant. Meanwhile, universities committed to increasing enrolment - like the University of Quebec - became increasingly impoverished.

Now the formula will reward expansion and penalize institutions which do not accept new students. And the ministry has begun talks with the universities on a scheme to eliminate the historic approach of funding altogether and base grants on a standard rate of spending per student in each subject.

Although they have only just begun, negotiations on the formula have unearthed deep fears and potential antagonisms within the universities.

The older institutions, which already do world-class research and have large graduate programmes, fear that a formula based on undergraduate enrolments will give adequate weight to research and result in a levelling-down of the province's universities.

They are pushing for a formula which takes account of the extra cost of postgraduate enrolments and awards quality by considering how much external research funding institutions attract.

The new universities, like the University of Quebec, believe that if the older institutions get their way the resulting formula will condemn the younger campuses to permanent second-class status as teaching universities with little research.

Underlying the negotiations on the formula is a philosophical debate about the future of higher education in Quebec. Many academics are sceptical about the government's claim that it can both strengthen research and increase the number of undergraduates while it spends progressively less.

Within the older universities there is a widespread conviction that the right course now would be for Quebec to consolidate its strong research universities by allowing them to maintain existing spending per student, while the developing universities mop up new students but do not take on new research or graduate programmes.

The Ministry of Education, however, is reluctant to formalize a hierarchy on these lines or curb the development of the University of Quebec, which has become a symbol of opportunity for a new class of French-speaking students.

Meanwhile the programme of voluntary rationalization on which Mr Laurin has pinned his hopes appears to have been paralysed by the defensive reaction of all universities as they begin negotiations of revisions to the funding formula.

According to Mr Pierre de Cellieux, vice president of Laval University, the universities will not start serious talks on merging courses until the government produces specific spending plans for each institution in the coming years.

"You have to deliver the bad news first. The government has put aside a portion of its funds for distribution according to the outcome of the formula. So why should institutions voluntarily give up programmes while they are still looking for a chance to get their share of that money?"

Another proposal decided upon during the Washington, DC meeting would make "satisfactory progress" towards a baccalaureate degree a prerequisite for varsity competition. The group also agreed to urge a NCAA special committee to urge a freshmen ineligible for varsity competition in "high pressure sports" in Division I, the most highly competitive athletic division.

The presidents plan further meetings to work out the details of their legislative proposals, such as what courses will constitute the core high school curriculum and what the minimum grade point average and standardized test scores should be.

Overseas news

Research funding gets top priority

from Guy Neave

PARIS France intends to carry on giving top priority to research funding, as shown in the 1983 budget proposals.

Over the next year it will invest some £4.5bn in all sectors of research including national industry as well as the scientific community. This is an increase of just over a third on last year.

The formula will reward expansion and penalize institutions which do not accept new students. And the ministry has begun talks with the universities on a scheme to eliminate the historic approach of funding altogether and base grants on a standard rate of spending per student in each subject.

Although they have only just begun, negotiations on the formula have unearthed deep fears and potential antagonisms within the universities.

The older institutions, which already do world-class research and have large graduate programmes, fear that a formula based on undergraduate enrolments will give adequate weight to research and result in a levelling-down of the province's universities.

They are pushing for a formula which takes account of the extra cost of postgraduate enrolments and awards quality by considering how much external research funding institutions attract.

The new universities, like the University of Quebec, believe that if the older institutions get their way the resulting formula will condemn the younger campuses to permanent second-class status as teaching universities with little research.

Underlying the negotiations on the formula is a philosophical debate about the future of higher education in Quebec. Many academics are sceptical about the government's claim that it can both strengthen research and increase the number of undergraduates while it spends progressively less.

Within the older universities there is a widespread conviction that the right course now would be for Quebec to consolidate its strong research universities by allowing them to maintain existing spending per student, while the developing universities mop up new students but do not take on new research or graduate programmes.

The Ministry of Education, however, is reluctant to formalize a hierarchy on these lines or curb the development of the University of Quebec, which has become a symbol of opportunity for a new class of French-speaking students.

Meanwhile the programme of voluntary rationalization on which Mr Laurin has pinned his hopes appears to have been paralysed by the defensive reaction of all universities as they begin negotiations of revisions to the funding formula.

According to Mr Pierre de Cellieux, vice president of Laval University, the universities will not start serious talks on merging courses until the government produces specific spending plans for each institution in the coming years.

"You have to deliver the bad news first. The government has put aside a portion of its funds for distribution according to the outcome of the formula. So why should institutions voluntarily give up programmes while they are still looking for a chance to get their share of that money?"

Another proposal decided upon during the Washington, DC meeting would make "satisfactory progress" towards a baccalaureate degree a prerequisite for varsity competition. The group also agreed to urge a NCAA special committee to urge a freshmen ineligible for varsity competition in "high pressure sports" in Division I, the most highly competitive athletic division.

The presidents plan further meetings to work out the details of their legislative proposals, such as what courses will constitute the core high school curriculum and what the minimum grade point average and standardized test scores should be.

The formula enabled well-established institutions like McGill, Montreal and Laval to protect their enrolment per student by keeping numbers constant. Meanwhile, universities committed to increasing enrolment - like the University of Quebec - became increasingly impoverished.

Now the formula will reward expansion and penalize institutions which do not accept new students. And the ministry has begun talks with the universities on a scheme to eliminate the historic approach of funding altogether and base grants on a standard rate of spending per student in each subject.

Getting younger by the day

from John Walsh

DUBLIN Irish students start college younger than in any other western country, according to a recent survey.

The study of 1980 first-year entrants was carried out for the Higher Education Authority by sociologist Dr Patrick Clancy of University College, Dublin. It also confirms there are great social inequalities in college admission rates.

In the year under review, a total 13,360 students enrolled for the first time as full-time students. They were distributed in 37 different institutions - 41 per cent in universities, 9 per cent in colleges of education and 50 per cent in the 22 colleges in the technological and vocational sector.

Dr Clancy found that 42 per cent of the new entrants were aged 17, a further 38.5 per cent were 18 while 19.6 per cent were aged 19. Less than 8 per cent were 20, while just over 2 per cent were less than 17 years old.

He concludes that Ireland has one of the youngest ages of admission to higher education among western countries.

His extensive survey also highlighted disparities in the social make-up of new entrants. More than 37 per cent of the new students came from five social groups - higher professional, lower professional, employees and managers, intermediate and non-manual. These groups constituted only a quarter of the population as a whole in the country.

Five other social groups - other non-manual, skilled, semi-skilled and other agricultural, for example fishermen and women and agricultural labourers were seriously under-represented.

The wide range of disparities is evident if one contrasts the position of the higher professional group with that of the unskilled manual workers group. The former group was over-represented among the new entrants by a factor of four while the latter group was under-represented by a factor of nine.

The representation of the farmers group (2.1 per cent) corresponded roughly to their proportion in the population.

The social selectivity which was reflected in overall levels of participation in higher education was also evident when Dr Clancy compared sectors and fields of study.

In general, the more prestigious the sector and field of study the greater the social inequality in participation levels.

Inequality between social groups was greatest within the university sector. Students from the higher professional groups were highly represented.

In an unusually blunt warning, the Education Minister, Dr Martin O'Donoghue said that in times of financial stringency there could be no prospect of any improvement in the overall funding of higher education. It was not the most urgent or essential priority among the various public services, he said.

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Students arrested after riots in Estonia

Students at Tartu University in Estonia last month staged massive protests against the ratification of their country.

The occasion was the four-day celebration of the 350th anniversary of the founding of Tartu University. About 5,000 students assembled on the square in front of the Tartu city hall, singing patriotic Estonian songs.

The rector of Uppsala University in Sweden, Dr Martin Holmblad, who was present at the official celebrations, witnessed the first part of the assembly. He reported that towards dusk, the crowd consisted simply of happy students, singing and discharging fireworks.

Later however, after the foreign visitors had proceeded to a historical pageant, the students began to sing nationalistic songs which are banned by the Soviet regime. The security police moved in and there were numerous arrests.

This is not the first time in recent years that Estonian students have protested against the ratification of their country by singing banned patriotic songs.

Earlier this year there were similar protests during the July Tallin song festival. In October 1980, 5,000 students and school pupils marched through Tallin singing songs and carrying the banned white blue and black Estonian national flag and placards reading "freedom for Estonia" and "Russians out of Estonia".

The young people are particularly incensed at what they see as the ratification of Estonian culture, discrimination against the Estonian language in schools and universities, and propaganda directed against the pro-independent Estonian republic.

Other sources of discontent include the pollution of the Estonian environment by the burning of oil shales, and persistent rumours that the Estonian port of Paldiski is being used as a base for nuclear-armed submarines.

Only recently the authorities in Soviet Estonia officially acknowledged that Tartu University was founded in 1632 by King Gustavus II Adolphus of Sweden during what Estonians refer to as "the good old Swedish days".

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Otago goes commercial in bid to boost numbers

from Lindsay Wright

WELLINGTON New Zealand's oldest university, the University of Otago, is conducting a national advertising campaign in an attempt to halt falling student numbers.

Medical school intakes are under threat, the number of part-time students in teacher college training is dropping and the university has decided it needs to promote itself nationally.

Otago recruited a new public relations officer last year, set up a committee to coordinate a campaign to recruit more students to Dunedin and recently put a promotional film on national television.

The vice chancellor Dr Robin Irvine has spoken to meetings around New Zealand and the university has produced upmarket promotional packages for all secondary schools.

In doing so, Otago is breaking new ground. New Zealand's universities have never before set out to compete for undergraduate students.

There is a significant difference between Otago and the other universities. Victoria University in Wellington, for example, attracts 62 per cent of its students from schools in its own region. At Otago, however, 70 per cent of the students are from outside Dunedin.

Just in case the attractions of Otago's many halls of residence, the charm of the city, and the persuasive

power of film and pamphlet prove insufficient, the university has now launched a new venture which may prove persuasive.

The university council has now instituted 200 annual travel bursaries worth \$400 each, specifically to attract North Island students to Otago.

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Turkey boosts state budget

from Bernard Kennedy

ANKARA Higher education in Turkey is financed through foundations and a revolving fund as well as from the annual budget. But it is clear from the budget proposals that plans for eight new universities and successive increases in the annual intake of new students will be difficult to achieve.

Of the new universities, Ankara's Gur University has been allocated the most, with TL6,200m (£20.9m), while the Hundredth Year University planned in the Eastern city of Van is to receive only TL261m (£900,000).

The largest individual allocation, of TL10,612m (£35.4m), goes as usual to Istanbul University, which is not only Turkey's largest but also has the most immediate financial problems.

It was recently said to be in danger of having its electricity cut off because of its debts to the Istanbul Municipality.

The failure of the Higher Education Council to gain control over the entire universities budget was unexpected. The finance ministry is said to have opposed it vigorously. Instead the HEC is to be allocated TL3,560m (£11.9m) for its own purposes.

Competition for the limited funds allocated to higher education in Sweden has been highlighted by a controversy surrounding the University of Lund.

A report in the country's leading independent-conservative newspaper, Svenska Dagbladet, said that since the 1977 reform of tertiary education, money meant for 100 lectureships at Lund had been swallowed up by a mushrooming bureaucracy.

Interviewed by Svenska Dagbladet, the National Board of Universities and Colleges said that universities were switching funds from teaching and research to administration.

The debate is related to a political squabble on the future of the regional educational boards.

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Satisfying that yen to work abroad

Toshiba, the Japanese electronics giant, is to recruit young British researchers to work in its labs on advanced technology projects. It is the first private company in Japan to do this on a regular basis.

Under the scheme, two and later perhaps more young people with a PhD or equivalent will be recruited. But they must be working already in

a national research institution, university or other non-profit-making organization. Final details are now being discussed between Toshiba and the British Embassy in Tokyo.

Recruitment is expected to start in January for the first two researchers to joint projects in areas which will include electronics and nuclear energy.

The rise of the million minders

In the second part of his series on great American universities, Peter David assesses the impact of lucrative deals between academics and industry

According to Gerald Lieberman, vice provost at Stanford, there are "not many" millionaires on the university's payroll. But there are certainly some, and their number is growing. In the United States the day of the corporate academic — and the corporate university — has arrived with a vengeance.

The last few years have seen a proliferation of headline-grabbing deals between major research universities and industrial corporations. Under them, business has poured millions of dollars into university laboratories in return for the right to patent or manufacture lucrative discoveries in the "hot" disciplines of microelectronics and biotechnology.

In many cases, the financial dimensions of these deals have been breathtaking. Harvard's Massachusetts General Hospital is to receive \$70m from the West German chemical manufacturer Hoechst AG to set up an entirely new department of molecular biology. The Monsanto chemical company has been pumping scores of millions into biomedical research at Harvard and into Washington University in St Louis.

Simultaneously, individual academics have been learning to turn their knowledge into money. One of the most spectacular examples was University of California biochemist Herbert Boyer whose gene-splicing company, Genentech, took Wall Street by storm when its shares were put on the market in 1980.

Genentech is only one of hundreds of academic-financial business adventures made possible in recent years by the ready availability of venture capital. Also by a belief in industry that breakthroughs in university biotechnology were laying the foundations for dazzling new manufacturing possibilities.

As a result, academic consultancies have multiplied. The Congressional science and technology committee, in special hearings this summer on the interpenetration of business and academic science, was told that hardly a single academic with serious expertise in biotechnology was not involved as shareholder or consultant in one or more private companies.

This explosion of entrepreneurship creates a perplexing conundrum for the leading universities. Most university presidents recognize that traditional academic values and priorities are in danger of becoming distorted by the new relationships with private business. Excessive industrial sponsorship threatens to foster an atmosphere of secrecy and competitiveness inimical to healthy scientific research.

On the other hand, the eagerness of private enterprise to collaborate with university research does appear to offer a much needed opportunity for American science and technology to reassert its world dominance, revitalize aging laboratories and fight off the Japanese and West German competition.

The temptation to accept the corporate embrace despite the dangers is increased by evidence that, without the infusion of additional dollars, American science and technology faces extremely hard times. Federal support has been shrinking rapidly — from \$1.2bn to \$32m in constant dollars between 1965 and 1979.

At the same time, the National Science Board produced figures showing that American science and technology has been losing ground in relation to Western Europe and Japan. The proportion of the world's major technological innovations produced by the United States decreased from 80 per cent in 1956-1958 to 50 per cent in 1971-73.

Judged by both words and action, the leading universities appear to have decided that the potential benefits of marrying academic ideas and corporate money are too great to reject. The last five years have therefore been marked both by a huge effort by major universities to clinch deals with private industry and a torrent of discussion about how such deals should be crafted to minimize conflicts of interest.

One of the most forceful proponents of stronger links with industry is Paul Gray, president of Mas-



Paul Gray of Massachusetts Institute of Technology: wants stronger links with industry

sachusetts Institute of Technology. He argues that the anxieties expressed today about corporate investment in university science are precisely the same as those asked after the war when the federal government began to invest in the universities.

These were "questions about the proposed area of research to the essential mission of the university; about potential constraints upon the directions of research; and on possible pressures for immediate or practical results". Yet the partnership between the federal government and the universities turned out to be "a surprising success story".

MIT itself has successfully garnered impressive corporate deals which it hopes can compensate for reductions in federal spending. They include a 10-year deal with Exxon for research on combustion and a long-term computer science research programme funded by IBM.

In both cases, the university claims, efforts have been made to avoid conflicts of interest. In the Exxon deal, for example, MIT itself retains the right to patent any technology developed as a result of the agreement, promising only to grant Exxon non-exclusive manufacturing licenses without any royalty charge.

Yet MIT has also been the centre of probably the most controversial agreement yet signed between private enterprise and a university. Last year it signed an agreement under which MIT would become affiliated with an independent biomedical research centre founded by the industrialist Edwin Whitehead, who made his fortune through the biomedical instrument firm, Technicon.

Under the scheme, the Whitehead Institute for Biomedical Research is to be established adjacent to MIT and up to 13 of the scientists employed there are to become affiliated to MIT as full members of faculty. The director of the institute will be a member of the MIT faculty — the Nobel prize-winning biochemist, David Baltimore.

The \$20m institute is expected to become one of the world's leading biomedical research facilities. It will receive \$5m a year from a \$60m trust fund established by Mr Whitehead, an inherit of a \$100m endowment on his death.

Who benefits from the partnership? MIT benefits in several ways. It will get an outright gift of \$7.5m from the Whitehead Foundation, and the new institute will pay the salaries of the joint faculty.

Although the new institute is autonomous, MIT will benefit from access to its facilities.

The Whitehead Institute benefits



from its access to the research activities within MIT and from the prestige associated with MIT's name. It will also be able to attract world-wide researchers who would be unlikely to work for a free-standing institute but are happy to become affiliated members of the MIT faculty.

The deal provoked considerable internal debate at MIT. Many academics felt uncomfortable about conferring faculty status on the Whitehead scientists. Would they pull their weight in normal teaching duties or simply become a privileged cadre with access to better facilities than their colleagues in the biology department?

Others felt that the Whitehead Institute, although nominally a philanthropic venture, was somehow linked with the biotechnology interests still owned by Mr Whitehead, or with Collaborative Research Inc, a Massachusetts biotechnology firm owned by David Baltimore.

Two dissenting professors said: "MIT's reputation is centrally involved. Mr Whitehead is admittedly proposing to donate a large fraction of his fortune towards the institute's inception, but MIT would be conceding in academic affairs and prestige to a faculty that would give the Whitehead Institute a position far beyond that of any other biomedical institute of comparable size and facilities."

Concern about the Whitehead affair and other deals at the leading universities prompted an extraordinary meeting last spring when five university presidents met at Pajaro Dunes in California for a private "summit" on the problems of collaborating with business.

The summit was convened by Stanford's president Donald Kennedy, and attended by Derek Bok of Harvard, Paul Gray of MIT, Marvin Goldberger of Caltech and David

Saxon, then still president of the University of California. Also present were 11 executives of firms which had become deeply involved in sponsoring academic research.

The purpose of the meeting was to devise a common code governing relationships between the two sectors, but the recommendations which emerged were general and tentative. Mr Robert Rosenzweig, Stanford's vice president for public affairs, told Congress: "To reach closure too soon on complicated issues that bear differently on different institutions might well inhibit the many discussions and debates that need to take place around the country if policies are to reflect reality, rather than emerge from ideology."

What general principles should govern the partnership between business and industry? According to Mr Rosenzweig, the discussions at Pajaro Dunes and elsewhere revealed a consensus within the university community on a small number of fundamentals.

These were:
 ● Openness is to be preferred to secrecy.
 ● The educational experience of students and postdoctorals has priority over the need to fulfil commercial obligations.
 ● University policies should protect the role of the institution and its faculty as credible and impartial resources in debates on scientific and technological policy.
 ● The choice of scientific questions to investigate must reside with the faculty who will do the research.
 ● The primary obligations of faculty members are to their teaching and research.

In an interview with *The THES*, Harvard's president Derek Bok, said he was reasonably satisfied with what Pajaro Dunes had to say about institutional relationships with industry. What was more worrying was the tendency of growing numbers of academics seeking to become entrepreneurs themselves and therefore taking on preoccupying executive duties.

"One really has to produce a peer pressure, a shared conception of what the role of an academic scientist is, so that professors realize that beyond a certain point, if they want to get too involved in entrepreneurial duties, they should leave the university and become an entrepreneur and not try to do both at the same time."

At Stanford, Donald Kennedy voices similar concerns. In the past, scientists decided early whether they were interested in the applied science of industry or the fundamental sci-

ence of the universities. All that was beginning to change.

"Because of the interest that is growing in high technology in getting an idea early in its evolutionary history we find that the fundamental researchers who have made the decision to stay in the university are now being offered a chance to have their cake and eat it too," he says.

Few of the major universities have done much to enforce this principle, however. Harvard informally pressured the Nobel laureate Wally Gilbert, to choose between his academic and business interests. He chose to leave Harvard and become chief executive of the Swiss company, Biogen. His is a rare case, however.

Hardly any of the major universities require their staff to disclose personal financial interests which might affect their research. Harvard relies on "peer pressure"; Stanford reserves the right to demand disclosure on rare occasions.

As a state university the University of California falls under a new rule by California's Fair Political Practices Commission requiring investigators who receive non-government funds to disclose any financial link they have with the research sponsor.

MIT comes closest to a strict disclosure rule. Every academic has to submit details of consultancy and other freelance earnings to the head of department, who is expected to ensure that these additional duties do not take up more than one day a week.

But the departmental reports are never published and the whole system depends on honest reporting. The one-day rule is seldom enforced as long as departments are certain that an academic's basic loyalty remains to the institution and its obligations.

Academics engrossed in private entrepreneurship can damage the institution in several ways: by neglecting their duties, becoming unduly secretive about their research discoveries or by exploiting graduate students under their control.

Yet university administrations remain deeply reluctant to impose oppressive regulations limiting consultants.

The reluctance of institutions to curb the activities of their faculty has a number of causes. One is a belief that without their external earnings, university scientists would be so underpaid in comparison with industrial scientists that they would simply defect to the private sector, or at least to a less restrictive competitor university.

But another reason is that most of the major research universities believe that the entrepreneurial activities of their staff is often a useful and socially productive phenomenon which contributes to the dynamism and creativity of the campus.

This ideology is particularly strong at MIT where, in some ways, the present emphasis on corporate links is a reversion to an early pattern in the history of the university which was interrupted by the war and the sudden infusion of huge Government research grants.

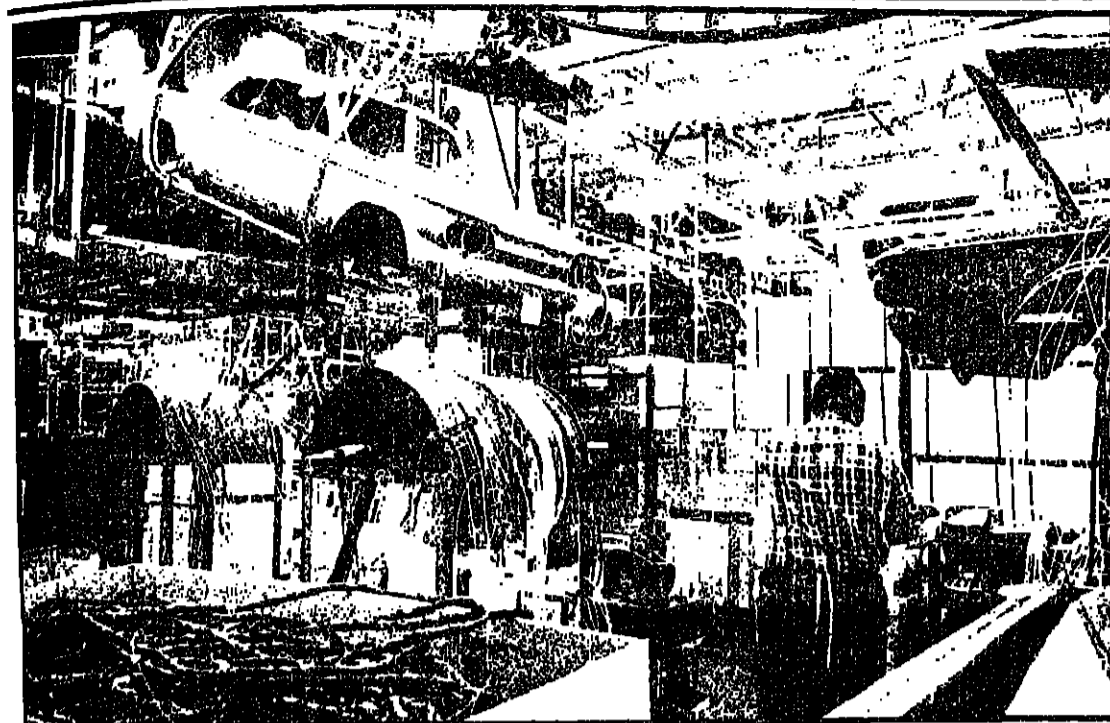
MIT was at the heart of the post-war revolution in microelectronics brought about by the invention of the transistor. The magnetic core memory was invented at MIT and earned the institution over \$20m in patent receipts. MIT also invented the first computerized transistor.

The laboratories at MIT sizzle with tales about academics who have struck it rich by commercializing their discoveries. Most of the plethora of tiny companies set up by students as well as lecturers fail. But there are enough spectacular success stories to keep entrepreneurial appetites keen.

Examples include the \$100m-a-year Bowes Corporation, which manufactures hi-fi equipment. It was founded by an MIT electrical engineer of the same name who was interested in the reproduction of signals. He is now a multimillionaire but still teaches.

The EGG corporation, a \$500m-a-year concern involved in instrumentation and synthetic fuels, is another MIT creation. The E stands for Edgerton, an electrical engineer who invented the strobe light. G and G were two MIT students who joined the company he founded.

Edgerton still retains an interest in MIT Professor James Bruce, head of MIT's industrial liaison programme, said "He's around here all the time, often with a screwdriver in his pocket. You might think he is the janitor."



Automated car production line at Detroit

search Triangle Park in North Carolina, as an exemplary experiment in achieving the rapid transfer of technological breakthroughs from university to industry. It is indeed unlikely that the famous "silicon valley" complex of high technology firms in Santa Clara would ever have emerged without Stanford's active participation.

The expansion of silicon valley to the point where it rivals the MIT-spawned industrial complex in Boston is often credited to the efforts of Edgerton, an electrical engineer who invented the strobe light. G and G were two MIT students who joined the company he founded.

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Only a few academic entrepreneurs achieve such fantastic successes, but many fare modestly well in small high-tech companies.

But the interpenetration with business goes beyond merely owning companies or part of them. About one in 10 members of staff are thought to have significant extra incomes as consultants or advisers for industries.

Professor Bruce, who is himself a consultant for a Saudi family and two Latin American organizations, estimates that thousands of companies around the world pay MIT faculty for advice and services. One member of the engineering faculty sits on the board of directors of a national airline; others on the boards of major banks.

MIT complements this individual enterprise with a well-developed institutional programme designed to make the fruits of MIT research available to industry — at a price. Some 300 companies — including about 40 in Europe and 30 in Japan — pay between \$7,000 and \$100,000 a year to belong to the institute's industrial liaison programme.

In return, these companies are provided with a "window" on the research under way at MIT, receiving regular details on thousands of research projects, drafts of manuscripts, theses and pre-publication reports.

For MIT, therefore, the growing links with business are nothing new. Many staff claim that precisely because of its experience with industry, MIT is specially conscious of potential conflict-of-interest problems and used to dealing with them.

Professor Walter Rosenblith, the institute's unofficial historian, claims that its intimacy with the practical world of industry has been a major cause of MIT's academic success. He adds: "There is a kind of tension at MIT which has learned to live with it. It might explode one day but it has created the intellectual vitality of the environment."

Its relatively narrow focus on technology does set MIT apart from the other great American universities. But Stanford University, although it entered the game later than MIT and Harvard, has also fully-round a symbiotic relationship with the new high technology industries in California.

Many academics regard the Stanford Industrial Park, like the Re-

search Triangle Park in North Carolina, as an exemplary experiment in achieving the rapid transfer of technological breakthroughs from university to industry. It is indeed unlikely that the famous "silicon valley" complex of high technology firms in Santa Clara would ever have emerged without Stanford's active participation.

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the individual enterprise of its academics with a determined institutional effort to push the university's discoveries into the marketplace. The university estimates that it produces a patentable breakthrough once in every 14 working hours.

Stanford's inventions processed through its office of technology licensing earned about \$3m this year. The inventor, department or school are allowed to keep about a third of the income, with the remainder going into general university funds. Hundreds of people working full time in silicon valley take Stanford courses through a system of close circuit television links with dozens of firms.

An initiative which will push the university into even closer contact with industry is the establishment of the Centre for Integrated Systems, a \$20m microelectronics facility being constructed on the campus with major funding from a group of nearly 20 private corporations which have each earmarked \$750,000 over three years to build up its equipment.

In return for their investment, the participating companies will get a window on the advanced microelectronics research at Stanford and regular contact with Stanford's staff and students. According to Donald Kennedy, however, the venture is essentially philanthropic and the companies will receive no exclusive information.

The atmosphere of enterprise and profit which pervades Stanford's deceptively serene campus in Palo Alto contributes to a loosening of intellectual boundaries as academics cross between disciplines in search of practical solutions to academic problems.

Typical of Stanford's breed of business-academic hybrids is Patrick Suppes, an internationally acclaimed philosopher and owner-founder of the Computer Curriculum Corporation, a company which is specializing

in the development of computers for teaching.

Suppes's academic and business interests have mingled in a complex of interrelated problems. In the 1950s his interest in philosophy merged with an interest in learning theory and later computers. In 1962 he proposed to the Carnegie Corporation that he build an automated laboratory for the study of learning. He started his company five years later.

Today, Suppes is a chain smoker of large cigars who spends two or three hours a day running his company but claims that it does not interfere with his academic work. Indeed, Stanford appears to have benefited from his work: the university uses computers to teach students logic and American history.

Universities like MIT and Stanford clearly derive enormous benefits — both financial and occasionally intellectual — from their multilayered connections with commerce and industry. But there is evidence, too, that their preoccupation with the outside world impoverishes some aspects of institutional life.

Professor Anthony French, a British physicist at MIT who opposed the link with the Whitehead Institute, says the postwar expansion of MIT led a heavy reliance on soft money and fuelled a tradition of professorial entrepreneurship. As a result, many staff at MIT were not as available for ordinary teaching duties as they should be.

Professor Frank Perkins, associate provost in charge of education at MIT goes further: "We have become so dependent on sponsored research and the pressure for individual faculty entrepreneurship is so great that in many cases it becomes a sort of business operation."

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Donald Kennedy: concerned about academic principles

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A number of academics are afraid that the pressure has gone beyond merely an obstruction to conscien-

eous teaching and has begun to exert a powerful corrupting influence on the entire institution. In a speech last spring, Leon Wofsy, professor of immunology at Berkeley, claimed that in the area of biotechnology new practices destructive of academic traditions were already commonplace.

According to Wofsy, the fierce competition among biotechnology companies for privileged access to campus talent has resulted in a profusion of "hundering arrangements" under which commercial ventures form respectable fronts as research institutes.

At Stanford, for example, Syntex has an arrangement with the department of medicine under which each member of the department is obliged to spend eight days a week consulting for Syntex. To circumvent the norms of university procedure, the contract is laundered through something called the Institute of Biological Investigation, whose membership is precisely the same as the faculty.

Scientists concerned about these developments argue that there is more at stake than simply the integrity of the academics involved. Even perfectly respectable deals between companies and universities are, they say, giving private industry an undeserved access to research findings which have been developed largely at public expense.

The presidents of the leading universities do appear sensitive to the question of the public interest, specially in the area of biomedicine. Donald Kennedy, a former head of the Food and Drug Administration, admits candidly: "We just have a lot of things to sort out."

But university leadership are also anxious to put the developing relationships with business in a proper perspective. Despite its massive investment in university biotechnology around \$200m according to Congress — private industry is still a relatively puny sponsor compared with the federal government.

The problems of conflict of interest in biotechnology may, in any event, be a short-lived concern.

Across the disciplines as a whole, the corporate stake in research fades into insignificance besides the federal government's. Paul Gray estimates that in the 50 or 60 universities which do most sponsored research, only about 3 per cent is supported by corporate money.

Even at MIT, where the proportion has risen sharply to 10 per cent from 5 per cent two years ago, industry's share is not expected to approach half within the next ten years. The great research universities see corporate investment only as an opportunity to acquire the marginal extra funds that can protect innovation in a stagnating economy.

But the margin of work sponsored by industry is also an important one because it tends to represent precisely those areas of science and technology which impinge most directly on society. As a result, their relationships with industry raise specially challenging questions for the great research universities — questions which will challenge not only their ingenuity but also, in some moral sense, their character.

Researchers at Stanford are also to receive \$2m from a newly-created Centre for Biotechnology Research, a non-profit organization backed by a company called Engenes, formed jointly by six major corporations.

Stanford University is establishing a Centre for Integrated Systems which will undertake research in microelectronics with funding from major corporations. Each corporation gives the university \$250,000 over three years towards the \$12m centre. In return, they get "enhanced access" to Stanford's research but no exclusive commercial rights — the university insists that the grants are unrestricted philanthropic donations.

Researchers at Stanford are also to receive \$2m from a newly-created Centre for Biotechnology Research, a non-profit organization backed by a company called Engenes, formed jointly by six major corporations.

BRIEFING

Paul Flather looks at bias, particularly with regard to the industrial relations unit at Warwick University

The first official inquiry into allegations of academic bias will be carried out *in camera*, with critics and supporters invited to make their case and answer questions before the three men appointed by the Social Science Research Council.

The inquiry follows accusations first raised by Lord Beloff, the Conservative peer and fellow of the British Academy, in evidence to Lord Rothschild's review of the SSRC that the industrial relations unit at Warwick was "unfairly biased towards the trades unions."

The three judges are: Sir Kenneth Berrill, former chairman of the University Grants Committee and head of the Central Policy Review Staff, now at Vickers da Costa; Sir Henry Phelps Brown, emeritus professor of economics at London University, an authority on labour economics; and Mr D. G. T. Williams, president of Wolfson College, Cambridge, and a reader in public law.

The three will report directly to the SSRC chairman, Mr Michael Posner, who has promised to ventilate the findings, although a final decision will remain with him. At present they are seeing critics including Lord Beloff, and Sir Leonard Neal, an industrial relations consultant and former professor at the University of Manchester Institute of Science and Technology. Both plan a rival Institute of Labour Affairs.

Once the charges have been defined the unit will be asked to put its defence. Lord Beloff has made it clear he has no axe to grind and is no expert in the field. He had made a generalized charge asking whether it is appropriate for industrial relations research "from the point of view of the trade union movement" to be



Principal actors in the drama: Clegg, (left) Berrill, Posner and Beloff

SSRC's silent three sit in judgment

publicly funded, as he told the House of Lords.

The three men mean to proceed quickly to minimize costs and the likely damage on the unit's morale and reputation on what is acknowledged as a difficult task. Other witnesses will be called.

The inquiry will have to deal with the following points:

- Has the unit chosen topics specifically suited to trade union of TUC interests? This will

involve a literature review. But the unit can in any case claim this is its specialist area, and that when it was set up trade unions were the emergent interest.

● Has the unit deliberately distorted some of its research analysis? Wide support of the unit nationally and internationally, as well as goodwill from both employers and unions would suggest otherwise.

● Has the unit been too closely identified with the trade union and labour movement?

The committee will have to interview Professor Hugh Clegg, the unit's first director, with close links to both the TUC and the Labour Party. He still sits on the unit's advisory committee along with Lords McCarthy and Wedderburn. Another well known figure is Richard Hyman, an associate fellow, who wrote a much publicized book *Strikes*.

● Why the unit appears to have researched Conservative labour legislation far more than Labour legislation. The Rothschild review asked why work on the 1971 Industrial Relations Act and the 1980 and 1981 Employment Bills had been produced but not comparable work on the 1974 and 1976 Labour Acts. The unit has produced several works on the Labour laws, but in the main they were restating rather than changing the status quo so less deserving of study.

● Why the unit has failed to investigate why trade unions in for example the railway and newspaper industries have resisted modernization. Lord Beloff made this charge in the Lords debate. The unit did produce a book on *Industrial Relations in Fleet Street* (1975). Lord Beloff also asked why no work on the closed shop had been produced.

● Why the Oxford history of trade unions has not passed Volume One yet. The project was begun by Professor Clegg in the 1950s, and published between 1969 and 1980. But a second volume from 1910 to 1933 is expected soon.

● Why the unit has not produced more international comparative work on industrial relations. A current project on collective bargaining management provides comparisons of five European countries.

Robert Edwards is used to facing objections to his work on human embryos, after nearly 15 years as leader in the field. As he said in his Galton lecture to the Eugenics Society in September, "when you start looking at reproduction you must expect opposition".

The truth of this was demonstrated a few days later when he conveyed the substance of what he told the society to another meeting, of medicine and journalists. The confusing press reports which followed left one thing clear, many will never accept experiments on human embryos produced by laboratory fertilization.

Yet in spite of the implacable opposition of people like Mrs Nuala Scarsbrick of the anti-abortion group Life, it is worth trying to put such experiments in their technical and ethical context.

That context can be pieced together from the rest of Dr Edwards' lecture, together with other contributions to the Eugenics Society's symposium "Developments in Reproduction".

First, an answer to one question: did he or didn't he? For this listener, at least, Dr Edwards' address to the Eugenics Society appeared to deal with experiments on "spare" embryos in the abstract. But his later accounts led to reports that such experiments were already under way at the Bourn Hall clinic near Cambridge where he and Mr Patrick Steptoe treat infertile couples.

It was this belief that prompted Dr Walter Hedgecock, scientific adviser to the Bishop of Norwich to accuse Dr Edwards of "pinning a baby down on a board and doing experiments on it". The British Medical Association urged the profession to refuse help for Dr Edwards's research, although this injunction was quickly withdrawn after assurances from Bourn Hall that human embryos had not yet reached their dissecting table.

What has already happened, it appears, is that Dr Edwards has taken on one side embryos which were not to be implanted and observed their development very slowly. Whether this counts as experimentation is partly a matter of definition, but the embryos were not

manipulated or interfered with.

However, Dr Edwards made it clear he would like to study embryonic development more actively, and this raises at least three further questions. How long might a human embryo be kept alive in the laboratory? What might one wish to do with it? and what ethical justification could there be for the investigation?

According to Dr Denis New, long a colleague of Edwards in the physiological laboratory at Cambridge, the answer to the first question is that human embryos cannot be kept in culture for very long. In contrast to the rat embryo, which is explanted at around eight days survives very well until two of its three weeks normal gestation are up, the human embryo is not supported by a well-developed yolk sac. This means that it must be provided with a substitute placenta for growth outside the womb, and to do this is still very far off.

In Dr New's view, the more alarmist ethical worries were premature. "We're going to blow ourselves up or starve through overpopulation long before we have to worry about babies in bottles," he said.

In the meantime, the results of Dr New's work on rat embryos give some idea of the value of such studies. They can be used to examine the effects of vitamin supply on the developing foetus, for example, and their influence on conditions like spina-bifida. And there are a whole range of systems for drug testing which depend on cultured embryos. The possible uses of human embryos, if they could be cultured beyond the present nine-day limit, are no less worthy. Dr Edwards suggested they might shed light on the causes of Down's syndrome, help in cases that embryos which are implanted are healthy, and provide information about miscarriage.

He was at pains to stress that he took the ethical questions raised by this research seriously, in contrast to

The future in embryo

Jon Turney looks at the work of Dr Robert Edwards and suggests that the debate over test-tube fertilization is confused by moral panic

some of the subsequent newspaper portrayals of the scientific pioneer over eager to exploit new techniques. "If you say ethics to most scientists, they disappear in a cloud of dust," said Dr Edwards. But this was not good enough for experiments on human reproduction.

He believed, though, that it was his duty as a scientist to put forward any idea which could help the human race. In vitro, or "test-tube" fertilization was just such an idea. Here, he cleaved to the first principle of medical ethics - do no harm.

He felt that an ordinary married couple who came to Bourn Hall had an "absolute right" to be treated, and it was his duty to ensure the methods were safe.

Aside from safety, Dr Edwards insisted that the new procedures could be evaluated by seeking precedents elsewhere. Thus, if artificial insemination by donor was acceptable, then so was oocyte donation for in vitro fertilization.

Similarly, transfer of the embryo to completely unrelated parents could be seen as pre-natal adoption. There was nothing new here, and the practice would be perfectly acceptable. However, he had strong objections to surrogate motherhood, where the newborn child was passed

back to genetic parents after delivery.

Among procedures which the embryo might go through after fertilization on the bench, Dr Edwards felt that freezing presented "no ethical problem whatsoever, in fact the amount of discussion of this question has been astounding". Once the embryo was thawed out, it was quite normal again - once again he seemed optimistic about the embryo's tolerance for such treatment.

Other laboratory procedures might be used to test the health of the embryo. For instance, if the newly fertilized egg is divided at the two cell stage, separate embryos are obtained, and one can be used to check the other before it is implanted.

And if it is legitimate to multiply embryos for clinical reasons, why not set out to produce embryos specifically for scientific research?

It is this suggestion which seemed to some to put Edwards's work well on the way to treating human tissue for sex determination, so that female embryos could be aborted.

Faced with possibilities like this, we could follow the policy which operated while the techniques for laboratory fertilization were developed, a kind of pragmatism through benign neglect. Edwards's work was not supported, but never prohibited either. When the results were seen to be good, they were widely approved.

But the range of possibilities now on offer from reproductive technology and geneticists demands a more thoughtful response than in vitro fertilization evoked in the sixty or so years between first emergence of the idea and its realization.

When the current moral panic dies down, we may at last see steps to organize a considered treatment of these issues. If so Dr Edwards, who one suspects, has enough experience of dealing with the press to know exactly what he was doing, will have done us all a service.

measurable values.

The proliferation of British committees now examining the implications of in vitro fertilization - six at the last count - underlines the fact that we don't know who should decide where the ethical line is drawn.

In addition, there has been very little serious discussion of the potential social effects if some of these techniques were put into practice. If freezing embryos is permitted, will it be allowed to assist the fashion for deferring parenthood by putting healthy embryos in store until the mother reaches a suitable pause in her career? And will we let the parents choose the sex of the embryo which is chosen for implantation?

Here, the history of artificial insemination, also related at the symposium, is illuminating. After many years of regular use, the law and social convention have scarcely begun to adapt to the practice. Conversely, some societies embrace techniques which increase choice very readily. The noted geneticist and eugenicist Cyril Carter told the meeting that on a recent visit to Bombay he met an Indian obstetrician who cheerfully admitted to performing thousands of amniocenteses solely for sex determination, so that female embryos could be aborted.

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Members of the college lecturers' union Natfhe are divided over whether to join the CND. David Jobbins explains the row.

Affiliation proposal causes bitterness among union members

The full intensity of the row over the college lecturers' union's decision to change its rules and affiliate to the Campaign for Nuclear Disarmament is beginning to surface. Feuding between union leaders who want to call a special conference to ballot the 14,000 members is so strong that it threatens to obscure the basic issue - what sort of political activity is suitable for a teachers' union.

Some opponents of the CND decision, taken by the May conference of the National Association of Teachers, are prepared to wait until next year's conference in Blackpool. Other members are chasing the 6,710 signatures, one tenth of the membership, needed to requisition a special conference.

The result is a public squabble with the president, Mr Chris Minta, who is on the right in Natfhe terms, calling supporters of a special conference "divisive and divisive". He is arguing that if action is not taken rapidly members will be lost.

If they achieve their target of signatures they will have made. Natfhe's history, it will be, the first special conference to be requisitioned since the union was formed by merger in 1976.

Dr Peter Knight, a past president of the union, is coordinating the attempt. He hopes the target will be met in time for the conference to be held on the same day as the salaries conference, scheduled for Wednesday 4. This would avoid wasting time, effort and money of bringing 400 delegates to London twice in just a few weeks.

He and his fellow opponents have deliberately chosen the harder of the two ways a special conference can be convened under Natfhe's rules. "It would not be difficult to get five

regions (Natfhe has 14) to support a special conference but we specifically decided to go to individual members to test opinion within the association," he said.

Natfhe's 800 branch secretaries have been sent copies of the requisition form, with an appeal that they should be made available to the members even if branch officials do not agree with its content.

They have been careful to avoid laying themselves open to the charge of using the union's machinery to their own purpose, although the extension has already decided to inform branches that the mailing drop is not official. Although lists of branch secretaries are not generally available, they are not impossible to obtain or even to compile.

Dr Knight is angry that the letter to branches refers to the cost of a special conference when the aim is to meet the deadline required to hold it on the same day as the salaries conference. But it was being pointed out that under the union's rules delegates to the special conferences will be the same as voted two to one for the rule change, making a change of heart unlikely.

Dr Knight agreed that under union rules a number of people who had perhaps joined other teacher organizations, would be able to vote in the referendum if the special conference called one. "But I hope they would not. If I was leaving an organization I would not vote."

Dr Knight believes a postal ballot is needed both because of the threat of numbers of resignations and because the aims and objects, changed by conference this year to include pursuit of political objectives, were put to the members of the two unions which merged to form Natfhe.



Professors head for a CND rally in London

it was against the instruments under which Natfhe had been created out of a merger between the Association of Teachers in Technical Institutions and the Association of Teachers in Colleges and Departments of Education.

He decided this was not so, but nevertheless, strongly feels the twin issues should be put to the membership.

Dr Knight hopes that the voting will take place at the same time as the elections of national officers, early next year. "It is sure that Natfhe officials will be able to handle the task of verifying and counting the signatures - although it is becoming clear that union leaders who support affiliation will insist that every one is checked."

"I imagine some people will try to oppose what we are doing," Dr Knight says. "Controversial decisions have been taken and the issue has got to be resolved. If we fail to get the numbers needed this determines the future path for Natfhe. If we succeed the association may change directions and priorities."

But Dr Knight's own priorities were quickly challenged by this week's vote. He had been president, then Malcom Lee, the then president, that

year's president, Mr Chris Minta. Arguing that it was open to opponents of CND to raise the issue at next year's conference, he described the call for a special conference as "divisive and divisive."

A full explanation of the implications of the rule change was sent to every member because "the executive recognized such a move would be controversial," he said.

Already Natfhe members are being courted by rival teacher associations. One, the Professional Association of Teachers, has increased its further education membership by 63 per cent - from 479 at the end of July to 783 now. General secretary Mr Peter Dawson (confusingly sharing the same name as Natfhe's) says that many are Natfhe members disenfranchised by the CND vote. Over the same period Natfhe college branches have risen from 39 to 52.

Of the eight Natfhe members lending their name to the requisition call, three have fought elections for the union's vice-presidency. Next year's president, Mr Cecil Robinson, said he had made his opposition to the rule change a key part of his campaign.

When bias can be binding

"All knowledge of cultural reality... is always knowledge from particular points of view." Max Weber in *The Methodology of the Social Sciences*.

Bias is very much on the agenda at present. The Open University stands accused of left-wing bias in four undergraduate courses, and is currently discussing the claims with the Department of Education and Science. Sociologists have been variously condemned as "ideological imperialists" by the Centre for Policy Studies, and as being "chronically afflicted" by bias according to Lord Rothschild.

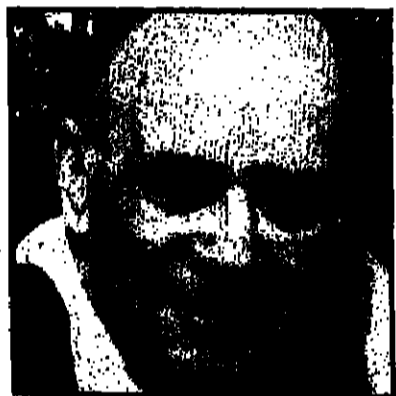
Last month an official inquiry into alleged bias at the Industrial Relations Unit at Warwick University got under way. Three witnesses, including the former head of the Government's Central Policy Review Staff, have been empowered by the Social Science Research Council to conduct an unprecedented inquiry into accusations that the unit has been "unfairly biased towards the trades unions."

Interest in the inquiry is bound to be high among academics, not least because for the first time the concept of "academic bias" will have to be officially defined. It is a curious term, of one level a trivial accusation for no one is ever entirely free of bias; at another level to accuse an academic of bias is like accusing a bridge player of using a code.

Although there has been substantial literature on the subject, Weber still appears the best authority on bias. He wrote there could be no such thing as an "absolutely objective scientific analysis of culture or of social phenomena independent of special and one-sided viewpoints". Yet he also recognized the need of caution for all "value judgments" from writing which was to be "scientific".

In the end Weber was appealing to academics to refrain from producing their "views" on social facts. The question he tucked was whether this kind of ethical neutrality could be unproblematically broken. Absolute neutrality, in the way Durkheim, some have advocated for B. F. Skinner the behavioural scientist has attempted for decades, is not possible.

Bias that is if it means anything at all means more than "being less than totally objective", which all scholars must be guilty of. Bias could thus mean a deliberate bias on the part of the researcher. In the case of a scientist, it could mean that the data of facts, or questions, have been deliberately selected so that they could mean the work was



Lord Rothschild: less than kind to sociology

biased towards a political party or group. In all cases it must be avoidable, and probably include some element of intention.

At a general level academics are always arguing among themselves putting claim against counter-claim. That is the stuff of scholarship and debate. But this kind of debate can merge into accusations of bias, as for example when the Marxist historian Christopher Hill was accused in the pages of the *Times Literary Supplement* by Professor Jack Hexter of Yale University of "selective quotation from his sources. Hill vigorously defended his position.

The historian David Irving has been widely and repeatedly accused of having distorted his evidence to defend his thesis that Hitler did not really know the extent of the Holocaust against the Jews. A pitched battle has been fought in recent years between the National Children's Bureau and the Black Paper authors Caroline Cox and John Marks over methods used for testing how children have fared in comprehensive schools.

The most sensational case in recent times has probably been over Sir Cyril Burt, long regarded as one of the founders of British psychology, but who was later found to have falsified his data. Another celebrated case was the Piltdown bones, when specimens supposed to have belonged to Piltdown Man (more than 200,000 years old) were found in a Sussex quarry, but were later shown to be much younger. In both cases bias had become fraud.

The most controversial recent case was probably the publication in 1977 of a pamphlet, *The Attack on Higher Education: Marxist or Radical Penetration*, by Professor Julius Gould, professor of sociology at Nottingham University. He distinguished between scholarly and radical modes of study. In effect claiming that radical

als, with very few exceptions, could not be scholars. The pamphlet was immediately condemned by the Campaign for Academic Freedom and Democracy among others, as being politically motivated and whipping up "McCarthyist-intolerance".

The Glasgow Media Group has provoked a hail of controversy with claims that the way news and current affairs is presented by the BBC and Independent Television News is biased and distorted, particularly when dealing with trade unions and the Labour left. The group has in turn been accused of being blatantly politically motivated. The controversy is currently being extended to include coverage of the Falklands crisis. One result though has been the BBC's decision to set up an internal review of its news coverage.

The OU is currently disputing claims of left-wing bias in four courses, two of which have now discontinued in any case. More blatantly the right-wing Centre for Policy Studies in a recent book, *The Right to Learn* launched a bitter blanket attack on "politicized sociology" taught as religious dogma.

Lord Rothschild in his review of the SSRC cleared the council of partisan support for any particular ideology, and rewrote there was no reason to assume social scientists would allow their political predilections to influence their conduct of their research. Since then there has been concern about higher cuts for Keynesian economic forecasting groups over monetarist counterparts.

Lord Rothschild is less kind to sociology, quoting extensively from an American sociologist from Seattle that it has "a disposition for pseudo-quantification and excessive concern with limitation of the methods of the natural sciences, overdependence on data from interviews, questionnaires and 'informal' observations", and finally that bias is sometimes presumed to be a chronic affliction of sociology.

Lord Rothschild does not go so far as to invent a secular Weberian concept of deliberate social science of which he approves, *extrapolitical*, that is free from personal political prejudices. But one specific charge against the Warwick Unit is allowed to float free.

The criticisms of sociology and the uncertainty which have surrounded the future of the SSRC for 10 months give Lord Rothschild's remarks into the unit an investigation quarters it is being regarded as a test case for the continued independence of publicly funded research in political sensitive areas.

Unit taken by surprise by inquiry decision

The Industrial Relations Unit is 12 years old and housed in a redbrick building on the Warwick University campus. The staff have been bracing themselves all summer for the coming inquiry, somewhat bemused that after all the controversy surrounding the social sciences and the Rothschild review, it is their unit that has been singled out for a special test.

Industrial relations is by nature a particularly sensitive subject, both in terms of party politics and the conflicting interests of employers and trades unions. For that reason the unit has been careful to build in safeguards to protect itself from bias and this adds to its feelings of injury because of the inquiry.

The unit set up an advisory committee specifically to guard against bias including representatives (assessors) from both the TUC and Confederation of British Industry. The committee also includes an assessor from the Department of Employment, and currently academics from the Universities of Kent, Cambridge, Durham, and Imperial College, London, as well as Lord Wedderburn from the London School of Economics, and Lord McCarthy from Oxford.

The unit also quickly evolved a series of agreed working rules to prevent any conspiracy or research work damaging the unit's general impartial reputation. Work has generally been of academic interest to the unit, and with guarantees of anonymity, the unit must be free to publish whatever it discovers.

Both confidential SSRC reviews in 1974 and 1980 dealt with questions of bias and gave the unit a clean bill of health. The 1980 one headed by Professor A. H. Halsey of Oxford University said the unit could not be accused of "bias in the sense of systematic distortion or disregard for evidence held to be important by other observers".

But if conceded that the unit may have aroused some disappointment in that it had not directed its attention "towards the immediate solution of managerial problems - such as how to induce employees to work harder or better cooperate with governments in controlling inflation; or accept management leadership with respect to technological change and efficiency".

It is understandably easy for those who cherish such hopes to feel that the unit, by offering little in this respect, is somehow biased against

management and its anxieties," the report said. "Yet there would be no quicker way for the unit to destroy its own effectiveness than to pursue a direct concern with the solution of managerial problems, since the unions would at once refuse all cooperation and access."

In the end the real test for the unit is the work produced and the reputation earned. The unit, sometimes described as a "fact-grubber" is heavily dependent on the goodwill of employers and trade unions to collect data; distorted data and faulty analysis would soon lead to fewer contacts.

The unit has generally enjoyed very good relations with employers. The CBI, ironically in evidence to the Rothschild review, said the unit's work was important to it and out of necessity went "into politically sensitive areas". Staff play a regular part in teaching regular courses for senior industrial relations managers from a variety of companies and nationalized industries. The Department of Employment also told Lord Rothschild it found the unit's work important to it. The MA degree course in Warwick which the unit's staff teach also places many graduates into management jobs.

The SSRC report on the unit also noted a proposed shift of emphasis towards the management side of the bargaining process in the coming years, making the current inquiry appear even more ironic. The unit was founded in the backlash of the 1968 Royal Commission on Trades Unions and Employers, and its research programme had been national structures of trades unions and the processes of bargaining.

In the past decade the unit has claims above all to have made explicit how shop stewards operate, show why industrial relations legislation, such as the 1971 Act, can produce the most perverse results, and provided some sort of factual underpinning for the subject. The current focus is on the effects of the differing styles of management on pay bargaining and the behaviour of the workforce.

Five projects began last year reflected the shift of emphasis: the unit is preparing studies of management and industrial relations in state enterprise; technology and unemployment; pay determination in private industry; trades unions and the state in the 1970s; and the impact of organizational decline on industrial relations.

It is understandable that those who cherish such hopes to feel that the unit, by offering little in this respect, is somehow biased against

Faced by a gloomy forecast

Jeremy Bray laments the loss of funds earmarked for testing and comparing economic models

Dispositions are being made which will shape the course of economic debate if not of the economy, for the next five years: but due to a quirk in the current stage of development in our constitution, the linchpin in a rational design has been mischievously removed. The Social Science Research Council (the so-called consortium for which it acts, which includes the Treasury and the Bank of England) has announced grants to individual forecasting teams. Now however it has been denied three quarters of the funds it had earmarked for the control task of testing the models and comparing the forecasts.

The acceptance of economic ideas by governments may continue to be a matter of fashion rather than of logic or science; but even as a fashion, an idea like monetarism is more likely to be accepted if it can offer some interpretation of recent events, and some prescription for current policy. Such is the state of economic science and economic education that interpretation and prescription will appeal to economic evidence, particularly to econometric evidence, on which a systematic attempt has been made to assemble it into a comprehensive economic model suitable for the analysis of alternative policy prescriptions.

There will still be chancellors of the exchequer who will rail publicly against forecasters and modellers in general, and then late at night go surreptitiously to examine the entrails of the chickens they believe their much abused forecasters have slaughtered. There will still be Tarzans on the backbenches who will swing riffs round ministerial haicks to whom models become tablets of stone rather than tools for analysis.

But the changing, uncertain relationships of the economy, in which dozens of variables interact in anticipated or delayed reactions to each other, can be handled far more powerfully with the application of econometrics and control theory to the basic economic theory. They give the layman arguments on the handling of evidence and the design of policy which were previously beyond the grasp of the most erudite verbal analysts. The middle the Chancellor gets into now whenever he tries to describe whether and how the exchange rate influences his pursuit of monetary targets could be cleared up by a simple exercise in policy design.

By the SSRC in the award of grants to competing model building and forecasting teams are of some importance. On the Treasury and Civil Service Select Committee we have been anxious to safeguard the freedom and diversity of research. We made no attempt to influence the SSRC in its award of grants. But from our experience in the use of evidence from all the main forecasting teams we tried to ensure that their work will be properly tested and compared in future.

At present no regular systematic tests of individual models or comparisons between models are published. Partly because of the detail of the methods, none of the forecasting methods of a quality that would be acceptable in an independently refereed professional journal.

At the conference on economic modelling at the London Business School in July 1978, Professor Lawrence Klein described good practice in model testing and Professor David Hendry demonstrated good practice in estimating equations from the data. The adoption of the letter of Hendry's estimation methods has in some cases improved model building,



Today the tests required by Klein in 1978 need supplementing. What matters is not merely how models behave in response to a single jump in interest rates, taxes, or the exchange rate; but how models behave in response to the bumpy ride experienced by the actual economy. Continuous shocks from within and without, with policy instruments adjusted continuously to reflect the priorities of policy makers, should be approached in a single jump in interest rates, taxes, or the exchange rate; but how models behave in response to the bumpy ride experienced by the actual economy.

The Speaker in the Commission is properly anxious to safeguard the financial integrity of the House. In that respect the main burden is actually carried by Mr Edward du Cann, who is not only Chairman of the Treasury and Civil Service Committee, but also of the Liaison Committee of the chairman of all Select Committees, which on behalf of the commission properly restrains the eagerness of committees to travel on Fiji and the like. But the commission is fey in its own financial responsibilities. It publishes no accounts of the £15.61m it spends. It meets haphazardly. It publishes no argument, no evidence and proceedings, as select committees do. This was defended in the House on July 5 on the grounds that the commission has to handle "matters of a delicate and personal nature which concern those employed in the House". Yet this delicacy allowed the commission to report that our excellent nurse, Sister Beth Neeking, receives £1.05 per pair of stockings in her uniform allowance!

The Treasury and Civil Service Committee and the House of Commons Commission will continue to slog out the matter through ponderous official proceedings. It is difficult to imagine that the commission's decision will be maintained by future divisions of the House. It is difficult to see the individual work needed, but £50,000 per annum to be matched by a further £50,000 from the SSRC to finance a new macroeconomic bureau for the testing and comparison of models and forecasts. But the House of Commons Commission (a recently established statutory committee of MPs which approves the domestic expenditure of the House of Commons) has refused to agree

that the grant be made, after considering it for six months. Meanwhile the SSRC has sought proposals from universities for the macroeconomic bureau, and strong bids are expected from Warwick, Oxford, Imperial College and Manchester. But having made its commitments to the model teams the SSRC is now short of £75,000 of the £100,000 per annum it needs to finance the key model testing and comparison work. Under academic and official pressures the SSRC had already diluted the draft guidelines agreed by the Treasury and Civil Service Committee without consulting the committee. So the interest as well as the money of the Treasury and Civil Service Committee is needed in maintaining critical standards.

The leading members of the House of Commons Commission are the Speaker, who chairs it, the Leader of the House, Mr John Biffen, and the Shadow Leader, Mr John Silkin. Mr Shore, as Shadow Chancellor, wrote to Mr Silkin supporting the grant. Since its inception, the commission has refused to make the evidence it receives available. In particular it has refused to make evidence from the Treasury and Civil Service Committee or to explain its decision. It is extraordinary behaviour on the part of the body which was established to make the House more independent of the executive.

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Breaking down preparatory hurdles

Mike Reddin objects to the high premium postgraduate students pay to sit exams at university

This probably isn't the best time in history to assault the British universities from within. We are now acclimatized to the external enemies and have adopted the traditional defensive postures in response: we hang on to what we have. Recession is the worst time to consider new approaches to our business: if it quickens the blood, attack rarely generates more than defensiveness as our universities there is no better way to deepen their conservative resolve.

However, I am not in an apologetic frame of mind: I've been thinking about the annual problem of preventing people from gaining academic qualifications unless they will agree to pursue ritual "acts of preparation". Depending on your nationality a British university will now demand from £2,000 to £3,000 per annum to allow you to sit one of its examinations. In the case of an overseas student for a postgraduate thesis you will only be allowed to submit your work for consideration if you agree, over a minimum period of two years, to part with some £6,000.

Under my own university's regulations (and I assume others are similar) the student must also live "within the normal commuting distance" that is, be obliged to incur considerable expense in being near to London and attend lectures, classes, seminars etc as their supervisors may require and "consult their supervisors regularly about their progress". The institution reserves the right to refuse admission at the beginning of any term to any student whose attendance or progress has been unsatisfactory.

Without getting lost in further detail the message is clear: if you want to offer a piece of academic work for qualitative judgment (which is what I take an examination to be) you must first study with us, live with us and only then, after just the right time, offer us the product of your labours. What utter arrogance: what utter contempt for any intellectual process.

The trigger for this little vituperation was a pocket calculator comparison of the new overseas student fees (circa £3,000 per annum) and my salary, expressed in hourly terms. The fees of four postgraduate students would pay my annual salary. Posted more bluntly, given that my "hourly rate" (40 hours per week for 52 weeks) amounts to £5.77 per hour, then I would need to see one PhD student for 10 hours per week (for 52 weeks) or for 17 hours per week during the 30 weeks of term, to legitimately claim his/her £3,000. Alternatively, assuming eyeball-eyeball contact hours of perhaps 20 hours per hour, I should be getting £150 per hour.

Without the payment you are not allowed to submit your thesis

Of course the student doesn't just get my infinite wisdom. Do you have £3,000 per annum worth of help to give to anybody? She or he gets slightly subsidized chips and ale and access to the library (which may or may not be relevant to his or her particular course of study). She or he may also, if relevant or desired, sit in on courses of lectures - almost all of which are targeted at undergraduate audiences.

In short, give or take a few pounds sterling, the PhD student is paying for "supervision". Crucially, it is a compulsory payment regardless of the quantity or quality of the examination of economic policy by the individual. But, without the payment you are not allowed to submit your thesis.

Let me repeat myself: we award degrees on the basis of the quality of work we see as examiners. I assume that most of us would settle for a fat cheque for £100 for reading through 70,000 words of prose and making some intelligent comments on it.

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Communications in higher education

Tontschy Gerig says that we must ask some fundamental questions if students are not to suffer

The dictum that education should be related to the facts and needs of the outside world and in particular, the industrial world, has long been with us. Recently this view has risen to new prominence with stress being placed on "education for industry" to the virtual exclusion of all other considerations. Surprisingly this view has received the full support of not just the Government and the Confederation of British Industry but also large sections of the educational world.

One only has to look at the increasingly important role Manpower Services Commission, Technician Education Council and Business Education Commission courses are assuming in further and higher education to see the extent of this support. This highly instrumental view of education has been reflected in the growing emphasis not just on skills as such (ie product as opposed to process) but also on specific skills for specific students. However one may well ask whether the view that communications should be entirely skills based/vocationally orientated is in keeping with the historic traditions of higher education and/or in the long-term interests of the students we serve.

One can point to the existence of a historical distinction between the concepts of education for itself and education for some ulterior motive, ie training where the former was seen as something quite above and beyond the latter. For example Raymond Williams in *The Long Revolution* identifies what he calls the "Old Humanist" tradition holding that: man's spiritual health depends on a kind of education which was more than a training for some specified work - a kind variously described as 'liberal', 'humane' or 'cultural'.

Traditionally this view of education has been associated with the universities, a fact implicitly recognized by the 1964 Labour Government, which established the polytechnics via the 1966 *A Plan for Polytechnics and Other Colleges*. This paper envisaged that the polytechnics would complement the educational provision by the universities; that they would:

offer an alternative approach to higher education by turning out graduates able to apply their knowledge and skills to the solution of practical problems which face our industrial and commercial firms. Nevertheless, even here, the development of "the whole person" was still seen as an important objective. Lewis Mumford in *The Transformation of Man* described it very clearly:

The achievement of the human whole - and the achievement of the whole human - take precedence over every specialized activity, over every narrow purpose. Clearly then, any attempt to restrict communications solely or substantially to the teaching of communication skills is an unwarranted departure from the tradition of higher education. Moreover, where any such departure takes place, we are arrogating our responsibilities to our students by denying them access to an originally conceived educational facility.

Turning to the second half of my original question, even for those lecturers content to concentrate on pure skills development, the present predominant approach to this is not, would argue, likely to be in the long-term interests of our students for two reasons. First it is all too often based on a hopelessly inadequate understanding of the underlying theory involved, a problem which is too extensive to be written off as one of individual failure, and second it is geared to producing qualities which industry will probably not require in the near future.

At its crudest level any attempt to deal with human communication must adopt a definition of communication involving the key notions of "intention" and "effect". To take rather functionalist view, communication can be defined as the process whereby a person sends a

trates on the processes underlying the production of a particular product.

Studies of future predicted European economic and industrial trends do indeed suggest that industry will increasingly demand flexibility in its employees, rather than the mere possession of certain specific skills. Taking a brief look at the nature of some of this evidence one may first mention the theory of Kondratieff's cycles with particular regard to its implications for the future pattern of innovation in British industry.

Kondratieff was a Russian economist who in the 1920s put forward the theory that, in brief, capitalist economies since the industrial revolution have followed a regular long cycle whereby roughly every 50 years they go in a circle from boom to bust and back again. Kondratieff's general contention was supported by Schumpeter in the late 1930s and in addition he highlighted another important aspect of this theory, namely that each boom period was the result of a new industrial revolution based on a new group of technologies.

The important word here is "new". It is clear that at the moment we are going through a recession which has been marked by the rapid decline of some of our traditional industries, in favour of new technologies like microprocessing, genetic engineering and materials development.

The implications are clear. Even for those wishing to argue that communications teaching should be geared to "skills for industry" the philosophy that one should teach, for example, letterwriting to would-be secretaries, may already be redundant for two reasons. First, there is some evidence that we are "over-producing" certain types of students for which there is a limited and falling demand. Consequently, for these students, the idea of teaching purely vocationally orientated communication skills is patently silly as many of them may well end up unemployed.

Secondly, those students of this group who do manage to find work may well discover that the nature of the job is changing so quickly that their specific communication skills are equally rapidly becoming redundant. Obviously this latter problem is not confined to the above mentioned students only but could well affect all students graduating in the mid-1980s. As a recent study by the National Foundation for Educational Research on the success of TEC programmes reveals, a growing number of students are becoming aware of this phenomena. This study found that, when asked the question: "How do you feel a TEC qualification is relevant to your future employment?" 11 per cent of students thought that this would depend upon "their job's future content or new technology".

Sadly enough, this level of awareness, although still small, nevertheless would seem to be higher than that of many of their mentors. I would argue, once again, that the development of flexibility, initiative and the ability to innovate is dependent on the adoption of a process-orientated approach.

Having said all this it is necessary to add one qualifying statement. This argument may give the impression that product and process-orientated approaches are diametrically opposed when clearly this is an oversimplification. Instead they are better viewed as opposite ends of the same continuum. Much present communications teaching in both higher and further education has, for reasons of short-term expediency, adopted unthinkingly a largely product-orientated approach. This will undoubtedly have serious consequences for our present and future students both in terms of their personal development and in terms of their ability to meet industry's changing needs. If we are to do anything to alter this dismal scenario we must begin by asking ourselves some fundamental questions about the nature and aims of communications teaching.

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continued from previous page rationale merely ignores it. Everyone is supposed to be attuned to respond to market forces once these have been released. Yet it is obvious that the large number of youth whose alienation and demoralization we have been discussing have no tendencies to such responses. These are reasons why further support for the Thatcher and Reagan positions is unlikely to emerge, except perhaps in the face of an international crisis of adventure, and will in all probability diminish greatly.

Once the Thatcher and Reagan experiments have come to an end, what might a more realistic policy rationale look like? It must start by recognizing that the demoralized segments of western populations cannot be charmed into less angry, more allegiant postures by government programmes that merely seek to alleviate their material conditions. Many young people who belong to ethnic minorities and other disadvantaged groups, and who bitterly resent their exclusion from the workforce because of the decline in the need for manual work and because they lack the cultural attributes that are desired for much nonmanual employment, now treat the dominant culture of the country in which they live as that of an enemy. This is perhaps the central message of the recent British riots, just as it has been of American urban upheavals during the past 15 years. The bulk of the young people who hold this view will not train diligently for what they regard as menial, unworthy, make-work jobs, and they probably will not do this in the unlikely event that a real need for the jobs for which they are offered training can be demonstrated. Thus the effectiveness of various training and "youth opportunity" programmes intended to reduce unemployment among culturally disadvantaged youth is very questionable.

Contrary to what the *laissez-faire* position seems to assume, it is simply not possible to force these portions of British, American and other western youth into useful employment. In view of high technology, the large numbers of persons who are unemployed and who are therefore directly or indirectly dependent on public subsidies are primarily surplus people obviously needed to perform essential tasks. The rest of western populations would seem to be able to keep the economies going without them and would clearly be better off if the surplus people did not exist.

But they do exist, and fortunately, there are no significant movements forming which aim simply at exterminating them. However, these surplus population segments can be expected to fight back desperately against policy changes that adversely affect them in far less deadly ways than extermination. It is therefore unrealistic to suppose that the kinds of direct and indirect, sometimes illegally obtained subsidies on which they depend for their existence can be eliminated without provoking convulsions in the cities of the west. For the foreseeable future, at least, there is no choice but to subsidize the rather large number of people who have dropped or been pushed out of the social order. To refuse to do so would leave them no alternative but to starve or to carry out violent raids on the rest of society. The suppression of such raids would entail more incarceration and killing than western societies should, by perhaps even could, undertake.

Youth demoralization is thus a singular and dominant problem in western societies today. Strange as it may seem to those who grew up before the post-war period, it no longer makes sense to treat the seriously delinquent youth from affluent backgrounds and the defiant youth from culturally deprived minority groups as distinct categories with essentially different problems. It is more realistic to treat them all as the product of a disorienting economic and social transition which has left affluent youth with the same delinquent doubts as the deprived. The role of young people in defiance of authority rights in Amsterdam, Berlin, Copenhagen, Zurich and other continental cities illustrates. Demoralized youth from both kinds of background mingle together with no difficulty, refusing to exert themselves voluntarily and diligently for any

thing much, unless it offers the kind of magical salvation which millenarian movements do, or the kind of celebrity among similarly disaffected peers which may be gained by leading pseudo-revolutionary or terrorist gangs.

It is likely that solutions to this problem can only be achieved through a combination of two conceivable eventualities. One of these is a substantial reduction of western populations so that they become more proportionate to the number of jobs that technologically advanced economies require to be performed. This implies policies such as making all practical means of birth control readily available to everyone, adjusting tax laws and subsidies so as not to penalize unmarried persons and small families, and severely curtailing immigration, both legal and illegal, into western societies. Cutting back expensive programmes of mass higher education may also be necessary in order to give more plausibility to the connexion between mobility prices and actual mobility attainments.

The other eventuality is the emergence of a real and recognized need for new and reasonably attractive jobs to accomplish things that at present are not accomplished or are accomplished inadequately. Such jobs can most readily be created in the general area of ecological safeguards involving measures to control pollution and to conserve scarce resources. Contrary to the anti-interventionist strictures of *laissez-faire* capitalism, it seems certain that more and more trained people will be required to plan, regulate and mutually accommodate the ecological activities and interests of citizens, public authorities and business firms.

Increased employment in certain kinds of human services is also a possibility, though making new jobs in this area obviously needed and attractive presents greater problems. We are thinking primarily about the custodial care of persons who in one degree or another must be restrained or protected for their own sake or for the sake of others. Besides controlling prison inmates, who almost certainly will become more numerous as demands for the suppression of violent crime increase, there is the whole area of caring for the insane, the mentally retarded, the aged, and all who are otherwise handicapped. In this latter area, current attempts to use community facilities and resources, rather than large institutions, multiply the number of custodial and service jobs. Generally, an upgrading of professional qualifications and some increase in personnel is desirable, and perhaps even necessary, in the provision of such human services. This seems especially true in the corrections area if the now very widespread tendency of prison-ers to indulge in prolonged, expensive and dangerous rioting is to be curtailed.

But neither the reduction of western population sizes nor the emergence of additional necessary and attractive forms of employment can be expected to operate immediately. Indeed, it is doubtful whether the individual incentive exists for a genuine reduction, and it is quite possible that a reduction would quickly be offset by further mechanization and automation of work tasks. Thus the best bet for reintegrating western societies in perhaps a generation's time lies in recognizing that an expansion of certain ecological and human services occupations is essential if youth demoralization is to be checked.

Between now and the end of this century, however, western domestic policy must be a holding operation. This will require a much sharper awareness of the limits on social reform and change, and it will necessitate the adoption of policy goals which are more realistic than those of the welfare state of *laissez-faire* capitalism. Equally important will be a clearer recognition of the need for political action to manage tensions and conflicts which can only be contained, not resolved. In this last regard, the rationale of domestic policy will have to be rather more "utilitarian" in its suppositions than almost any other now exists.

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BOOKS

Acts of renunciation

by Valerie Shaw

The Diary of Beatrice Webb
Volume one, 1873-1892: Glitter Around
and Darkness Within
edited by Norman and Jeanne
MacKenzie
Virago, £15.00
ISBN 0 04903 219 9

"Sometimes I feel as if I must write, as if I must pour my poor crooked thoughts into somebody's heart, even if it be into my own," wrote Beatrice Webb in her diary at the age of sixteen. The motive she expresses is common enough among diarists, especially during adolescence, when "poor crooked thoughts" seem all the more precious for being incommunicable to anyone other than the writer's second self.

But unlike many diaries kept by young people (and particularly by girls), Beatrice Webb did not confine her personal usefulness with her transition to adulthood; for seventy years she preserved not only the habit of recording her thoughts and feelings, but also, to some extent, the self-dramatizing impulse, sometimes tinged with self-pity, that is discernible in the earliest entries. What makes this diary impressive, however, is not its continuity, but the way it develops into a document of social, as well as individual, change.

That Beatrice Webb eventually came to see her journals as historically relevant is clear from the care she lavished on preparing *My Apprenticeship*, which was published in 1926 and consisted of diary-extracts linked together with explanatory passages. Her belief that this, the first part of an autobiographical trilogy, would "have some value as a description of Victorianism" has been fully borne out: historians still give *My Apprenticeship* a central place for its vivid account of the intellectual and social changes which characterized late nineteenth-century England. The period covered by the first volume of Norman and Jeanne MacKenzie's edition of *The Diary of Beatrice Webb* coincides with that encompassed by *My Apprenticeship*, taking us up to the point at which Beatrice declares, with mingled regret and elation, "Exit Beatrice Potter. Enter Beatrice Webb, or rather (Mrs) Sidney Webb for I lose alas! both names". But the fact that portions of the diary have become familiar through earlier publications in no way lessens the impact of this new edition, which traces the gradual emergence of the writer's character, and avoids, more completely than *My Apprenticeship* could do, what she called "the fallacy of being wise after the event".

Beatrice Webb's tendency to digress and to pack her diary with bits and pieces more suited to a scrapbook have made it necessary for the editors to cut the available material substantially, but plenty of evidence remains to suggest the variety of purposes served by writing in her "diary-book". As well as providing "a necessary safety-valve" which allowed her to increase her intellectual reach and "talk one's little thoughts out to a highly appreciative audience", the journal was also an ideal place to relax from strenuous self-improvement by conducting "a pleasant chat with oneself"; it provided both a testing-ground for the speculative intelligence and curiosity which Beatrice Webb's upbringing and family background nurtured, and - more flatteringly - a "mental looking-glass, wherein to look at oneself complacently, and one does not like always to be reflected in the unbecoming clothes of tiresome effort to understand what is just outside the grasp of one's little intellect". When Beatrice Webb made that particular admission of a need to see herself sometimes in an attractive light, she was conscious of her life as being "divided sharply into the thoughtful part and the active part, completely unconnected one with the other"; it was a feeling that persisted

long after 1893, the date of this entry, and so recurrent too was a desire to feel well of herself that vanity and complacency always figured prominently in the lists of faults drawn up during her bouts of self-accusation.

The situation in which Beatrice Webb found herself most often in this period was characterized by stark alternatives and "conflicting ideals". Early on in her search for a vocation, she showed remarkable insight into the consequences of her "doubleness of motive" and of concealing the thoughts and ambitions that absorbed her. She realized that "this dissemblance towards the world you live in, extending even to your own family, must bring with it a feeling of unreality, witless, a loss of energy in the sudden transitions from the one life to the other". Displayed here is what Norman and Jeanne MacKenzie describe as "a profound inner conflict between emotion and intellect, between her feminine instincts and her desire to be independent and successful in a man's world", and which they see as corresponding to "the contrast between her physically attractive, light-hearted and worldly father and her frustrated, intellectually ambitious and puritanical mother". Large sections of the diary support this view; again and again we find Beatrice Webb setting happiness against duty, or renewing her determination to curb enjoyment of the glamorous social life to which her father's affluence, as well as her good looks, seemed to entitle her. She knew that her solitary reflectiveness could easily turn into brooding, sometimes verging on morbidity; and her certainty that the "restless ambition" of her nature would never allow her to submit to what she termed in *My Apprenticeship* "the Victorian code of feminine domesticity" always had to contend with her equally strong conviction that a woman's health, "physical and mental", depended on having "defined some duties to fulfil".

This notion of life as consisting of choices between mutually exclusive alternatives gives much of Beatrice Webb's diary a moral sternness that is reminiscent of Ruskin's "two paths", or Carlyle's urgent rhetoric, with its insistence that nineteenth-century man must decide once and for all between salvation and eternal damnation. But in Beatrice Webb's case this typically Victorian sense of crisis, and the inclination to see all existence, both on a personal and a historical scale, in terms of discrete epochs, was complicated by ambivalence about the proper role of women. As it progressed, and she re-read it from time to time, the diary certainly encouraged her to discern watersheds in her own experience, leading in 1887 to the realization that, "with a strong warm nature, it is not one crisis but always recurring crises". In 1893 she records the closing of "the inactive and irresponsible part of my youth" by her mother's death, an "ultimatum" which forced her to choose between a view of the world as "an infernal chaos" or "a manifestation of goodness"; and later, after the painful collapse of her relationship with Joseph Chamberlain, she notes with equally solemn finality: "I shall not write again in this book. It is the close of a period with me".

Yet underlying, and partly vitiated, the firmness with which she divides her experience into eras, each one inaugurating "a fresh start", or marking a new stage in what becomes a kind of pilgrimage, is a feeling that the discovery of a vocation must be as much a process of waiting as of searching, and that too much self-consciousness only inhibits "the natural and true development of my own nature". Beatrice Webb's prime concern, it is in this spirit that she refers, in 1883, to "whichever vocation my nature and circumstances eventually force me into", putting her trust in the arrival of "some day" when "I shall surely... have the veil withdrawn and be allowed to gaze unblinded on the narrow limits of my own possibilities". The mystical language here is not only a reflection of the rather vague religion which she salvaged from her rejection of orthodox Christianity, but a facet of her yearning for some authority outside



Beatrice Webb

herself to help her assess her capabilities accurately, and to indicate which direction she should take. What is more, she believed that "deference to authority", rather than "original thought" was what made a woman "personally charming". Beatrice Webb was struggling, however, not simply against the social conventions which made her self-conscious about being over thirty and still single, but against a passivity in herself that seemed an acceptable way of restraining the strong will she found so difficult to justify, in every sense of that word.

From one point of view, the quiescence which makes up one strand of the first ten years covered by this volume, represents a compromise with the Victorianism Beatrice Webb was in, so many other ways resisting, and it may seem to be part and parcel of her later anti-suffrage stance. But this is to underestimate the courage, let alone the self-confidence, involved in her determination to remain true to her craving for a "bird's eye view" of mankind and for "the mastery of some sympathetic philosophy to bind together isolated groups of ideas and experiences" - aims which she pursued without any of the resources of a formal school or university education, and with a strong suspicion that by nature she was "something like Rosamund in *Middlemarch*".

Her wide reading, and, perhaps more importantly, her friendships with intellectuals like Herbert Spencer (whose "religion of science" she explored and then discarded) did provide a measure of support. She turned eagerly to the "deep earnest view, untouched by cynicism" conveyed by George Eliot; reading Eliot during one of the many illnesses which accompanied Beatrice Webb's constant - and often debilitating - mental activity, she found solace. There was comfort in a melancholy philosophy of "noble suffering", and it is easy to see why a doctrine of self-renunciation which transcended conventional definitions of happiness should have appealed to a young woman who proclaimed in 1883 "I was not made to be loved", and seven years later was noting, "I am not capable of loving". Inspiring too was Eliot's preference for "emotive over rational thought", even though at this stage most of Beatrice Webb's energy was being spent trying to "maintain my reason as the ruler of my nature" and to escape from "instinct and impulse".

The price paid for suppressed instincts became evident to Beatrice Webb through watching Herbert Spencer growing old in the pathetically isolated light of his mind, reduced to "a sort of spider-like existence; sitting alone in the centre of a theoretical web", probably influenced

more deeply than studying his

the "new consciousness of sin" which she was later to see as the origin of the "ferment" of the 1880s, when middle-class "men of intellect and men of property" began to develop a class awareness founded in guilt. Discerning that secularization was the most decisive change occurring in the late nineteenth-century, Beatrice Webb retained her puritan emphasis on self-culture as the principal human obligation. And it was a duty that brought with it what Leonard Woolf described as the torturing of the ego "in the old-fashioned religious way almost universal among the good and wise in the nineteenth century". Beneath the coolly professional surface which Beatrice Webb presented at the time she knew her. Woolf could sense a "neurotic turmoil of doubt and discontent", a tangle of "strains and stresses" that also included the denial of the passion and imagination, of an artist.

Too readily grasped, Woolf's diagnosis produces regret that instead of expressing her artistic temperament in fiction Beatrice Webb found other channels for her gifts of observation and psychological insight, her ear for conversation, and her skill at drawing "sketches from life". All of these abilities are employed throughout the diary, notably in her accounts of time spent among the Baccup weavers; and in 1889 Beatrice Webb did contemplate writing a novel, mainly as a relief from facts and statistics. But this fancy could not withstand her scrupulous examination of her motives, and she insisted that until she had discovered "social laws in the terms of personal suffering, personal development, personal sin", no "dramatic representation of facts" could be of any value. In art, so she argued, "the representation of one individual instance may tell the whole", while in science "to know the whole we must observe countless instances - diverse and similar". This philosophical complacency of the Marxists has left the non-Marxists feeling justifiably unthreatened. There is reason to doubt, however, that the Marxists have earned their philosophical security.

Edgley, for example, accepts a naïvely realist construal of historical materialism and the kind of social science which follows from it. According to him Marxist social theory both depicts the economic contradictions causing class antagonism, and opposes competing social theories which can only obscure reality. By representing the reality of a social movement and speaking for it, Marxist social scientific theory aims to heighten class antagonism. This neat but easy linking of theory and practice depends for its validity on the thesis that, for the most part, only the "false consciousness" of the proletariat who are deceived by bourgeois ideology prevents them from realizing the class solidarity and consciousness necessary for revolutionary struggle. Recent history proves this thesis to be false. In order to preserve the traditional Marxist conception of the unity of theory and practice, then, the commitment to the correspondence theory of truth will have to be dropped.

This does not entail, however, that Marxists are entitled to believe that theory is true if it forwards class interests, for that belief presupposes, like the belief in realism, that class membership and affiliation exists independently of class consciousness. Only the truth of the false consciousness thesis would provide a convincing conception of class. Philosophically, Marxists must hence develop an account of truth which is neither an instrumentalist nor a correspondence view. Further, since it transpires that social consciousness cannot be construed from an individual's place in the more subtle account of social consciousness and identity is required. Steven Lukes convincingly demonstrates in his essay that Marxism's

morality as purely ideological in class societies, while simultaneously veiling against the horrors of capitalism in the strongest possible moral language. Lukes explains this paradox by pointing out that, on the one hand, when Marxists reject morality as ideological they are rejecting morality in the narrow sense of any system of rules specifying justifiable claims. Any such system will treat all individuals in accordance with a common standard; but if all individuals are different by definition then such systems will treat people unequally. On the other hand, Marxists do believe in morality in the broad sense of a fundamental human good, a good which is "inescapably and universally the good of man". Now if one thinks of moral rules as constraints on conduct occasioned by scarcity, selfishness and the philosophy of mind - can Marxists either accept or ignore the status quo. The challenge of Marxist philosophy has yet to be put; the need for such a challenge is evident.

J. M. Bernstein
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mentators who have concentrated primarily on the Critical works themselves.

This approach yields some interesting discussion of Kant's general view of the mind, its relation to the body, personal identity, freedom, and the targets at which the Paralogisms were aimed. Ameriks believes that in this area Kant was more of a rationalist than the texts of the Paralogisms alone suggest, and that he was more committed to a form of immaterialism for the self than commentators have generally supposed. Such a view might clearly be used to explain the notorious difficulties in Kant's treatment of freedom, but Ameriks goes further than this in suggesting that Kant's form of immaterialism is more defensible than most contemporary philosophers would allow.

These are substantial claims and they call for a substantial parade of evidence. Ameriks at some points embarks also on a narrow and detailed examination of some very recent philosophical work in an attempt to link Kant's views with contemporary issues, and this inevitably makes his task even more formidable. There are really two different volumes in this one work. The first proposes and supports a methodology for the use of the non-Critical material; the second interprets the Paralogisms, and indeed Kant's other works on the mind and the self, and relates them to the complex, rival theories in today's philosophy of mind. Ameriks's book falls between these two stools. It satisfies the requirements of neither quite so fully, but will still function as a striking signpost to future exploration.

Pippin's approach is not open to these difficulties. Moreover he is monstrously correct in saying both that Kant wished strongly to emphasize a "formal" treatment of knowledge and morality, and that this aspect has not so far been properly explained. Kant called his own theory "formal" Idealism to distinguish it from a more standard variety, and it is this central but often neglected point that Pippin seeks to clarify.

Pippin has excellent discussions of, among other items, Kant's perceptual vocabulary, the Metaphysical Deduction, Schematism, and the nature of transcendental argument. Where it is necessary he appeals comprehensively and judiciously to the most recent literature, but the discussion is always kept within bounds. Though he has selected one aspect of the *Critique* for discussion he has to cover most of the central sections of the *Analytic*, omitting only extensive treatment of the *Principles*. In all this he is sensible and subtle. In this he is a sensible and subtle interpreter, and this will make his book useful for advanced undergraduate or postgraduate instruction.

Graham Bird
Graham Bird is professor of philosophy at the University of Southampton.

BOOKS

Marxism's silence

Marx and Marxism
edited by G. H. R. Parkinson
Cambridge University Press, £9.95
ISBN 0 521 28904 1

Professor Parkinson begins his introduction to this volume of lectures from the Royal Institute of Philosophy with a remark of Charles Taylor, taken from an essay originally published in 1966, that Marxism has had very little impact on philosophy in Britain. Despite the publication of many books concerning Marxist philosophy in the past fifteen years, Professor Parkinson contends that Taylor's earlier assessment of the impact of Marxism on philosophy remains substantially true today. This evaluation of the current situation is undoubtedly correct. On the evidence of the essays assembled here the reason for Marxism's failure to have any pronounced effect on British philosophy is not difficult to detect.

Granted the high quality of some of the essays in this volume, still none of them, with the possible exception of Timothy O'Hagan's balanced account of Althusser's conception of philosophy, offers a challenge to the reigning orthodoxy or orthodoxies of contemporary English-speaking philosophy. Indeed, apart from O'Hagan's essay and Roy Edgley's defence of the link between Marxist social theory and revolutionary practice, none of the other essays even attempts a defence of any peculiarly Marxist thesis.

Generally, then, one senses that the reason for the malaise concerning Marxism's possible contribution to British philosophy is a scepticism about either the necessity (for non-Marxists) or the possibility (for non-Marxists) of such a contribution. The philosophical complacency of the Marxists has left the non-Marxists feeling justifiably unthreatened. There is reason to doubt, however, that the Marxists have earned their philosophical security.

Edgley, for example, accepts a naïvely realist construal of historical materialism and the kind of social science which follows from it. According to him Marxist social theory both depicts the economic contradictions causing class antagonism, and opposes competing social theories which can only obscure reality. By representing the reality of a social movement and speaking for it, Marxist social scientific theory aims to heighten class antagonism. This neat but easy linking of theory and practice depends for its validity on the thesis that, for the most part, only the "false consciousness" of the proletariat who are deceived by bourgeois ideology prevents them from realizing the class solidarity and consciousness necessary for revolutionary struggle. Recent history proves this thesis to be false. In order to preserve the traditional Marxist conception of the unity of theory and practice, then, the commitment to the correspondence theory of truth will have to be dropped.

This does not entail, however, that Marxists are entitled to believe that theory is true if it forwards class interests, for that belief presupposes, like the belief in realism, that class membership and affiliation exists independently of class consciousness. Only the truth of the false consciousness thesis would provide a convincing conception of class. Philosophically, Marxists must hence develop an account of truth which is neither an instrumentalist nor a correspondence view. Further, since it transpires that social consciousness cannot be construed from an individual's place in the more subtle account of social consciousness and identity is required. Steven Lukes convincingly demonstrates in his essay that Marxism's

morality as purely ideological in class societies, while simultaneously veiling against the horrors of capitalism in the strongest possible moral language. Lukes explains this paradox by pointing out that, on the one hand, when Marxists reject morality as ideological they are rejecting morality in the narrow sense of any system of rules specifying justifiable claims. Any such system will treat all individuals in accordance with a common standard; but if all individuals are different by definition then such systems will treat people unequally. On the other hand, Marxists do believe in morality in the broad sense of a fundamental human good, a good which is "inescapably and universally the good of man". Now if one thinks of moral rules as constraints on conduct occasioned by scarcity, selfishness and the philosophy of mind - can Marxists either accept or ignore the status quo. The challenge of Marxist philosophy has yet to be put; the need for such a challenge is evident.

BOOKS

A third generation on Kant

Kant's Theory of Mind: an analysis of the Paralogisms of Pure Reason
by Karl Ameriks
Clarendon Press: Oxford University Press, £15.00
ISBN 0 19 824661 7

Kant's Theory of Form: an essay on the Critique of Pure Reason
by Robert B. Pippin
Yale University Press, £16.50
ISBN 0 300 02659 5

Among historical figures Kant held the focus of attention for many British and American philosophers during the 1960s. The first generation of books on Kant in that period, including his own *Kant's Theory of Knowledge*, Bennett's *Kant's Analytic*, and Strawson's *The Bounds of Sense*, represented Kant as one who accepted the limited merits of empiricism but wished to remedy its inadequacies. Since then a large number of second generation works on Kant have appeared, in which this initial framework has been variously approved, queried, altered, or rejected.

The two works by Karl Ameriks and Robert Pippin represent a third generation of such works, characterized by a vast and erudite assimilation of previous commentaries, including much recent work by German philosophers, a greater appeal to those of Kant's writings outside the principal works of the *Critical Philosophy*, and an interest in pursuing quite specific aspects of that philosophy. Ameriks concentrates on Kant's account of the mind, especially as it is outlined in the Paralogisms; Pippin on Kant's distinction between "form" and "matter" in knowledge, and especially on Kant's claim to unearth "formal" conditions of experience. Both books are impressive in their scholarship and argument. Both assume a good deal of prior knowledge of Kant and of the recent secondary literature on his philosophy, though Pippin's is the better presented and more readable.

Ameriks's approach to the Paralogisms is not straightforward. Although he provides a detailed commentary on some passages from the Paralogisms themselves those texts generally take second place to a variety of material from Kant's pre-critical period, from lecture notes of differing periods, and posthumously published writings. The reason for this is that Ameriks wishes to set the discussions from the *Critique* into a more general framework of Kant's development. Indeed it is one of Ameriks's central claims that these non-critical texts actually determine

but it certainly offers little evidence for the health of political philosophy. More serious are the contributions from Russell Keat and Richard Norman, which treat the relationship between socialism and liberalism, and the relationship between equality and liberty. Keat argues for the incorporation of a notion of liberal rights within Marxist socialism, whereas Norman attempts to reconcile liberal ideas of free choice with egalitarian principles, employing rather standard arguments against no less standard assertions of the antithesis of liberty and equality. Neither of these discussions contains much that is original, and both are disappointingly lacking in substance.

The last pair of essays, by Keith Graham and Anthony Skillen, are on the problem of political obligation and obedience, and freedom of speech and freedom of expression. Here the terrain shifts from Marxist to anarchist and libertarian theories. Again the efforts are thin and lacklustre. Graham makes a weak case for direct democracy, while Skillen fails to develop a distinctive basis for his "libertarian socialist" position, despite some interesting remarks on political education and the centrality of speech for political life.

Lacking lustre

Contemporary Political Philosophy: radical studies

edited by Keith Graham
Cambridge University Press, £12.50
and £4.50
ISBN 0 521 24551 6 and 28783 9

This collection of "radical studies" offers six essays on selected (if not random) topics in political philosophy. The contributors are all young British philosophers, "radical" but not necessarily Marxist, who operate from within the analytical tradition. The essays are presented in support of the claim that political philosophy today is in a flourishing state. To be sure, the essays in this collection are, for the most part, lucid, skilfully argued, and make some contribution to a clarification of various current social issues. Yet, to my mind, they illustrate the contrary thesis, namely, that analytical political philosophy is still bedevilled by a stubborn reluctance to engage with the large, substantive concerns that animated the grand tradition of political philosophy as practised by Plato, Machiavelli, Rousseau, or Marx.

In the first essay, Ted Benton attempts strenuously to divorce the theory of power from the theory of interests on account of "the necessary value-dependence of the concept of interests", as if the latter were an infection to be avoided at all costs. If, as we are told, political philosophy is flourishing, the "value-dependence" of a concept should be not a cause for aversion, but rather an opportunity for intrepid theory. John Harris argues for the political liberation of children and their elevation to "full political status". Seemingly reasonable arguments are assembled to support the mischievous and wholly unreasonable conclusion that the legal and political rights of children should be equal to those of adults. Such a conclusion may indeed be radical, as defined in the introduction ("questioning and challenging the received wisdom"),

but it certainly offers little evidence for the health of political philosophy. More serious are the contributions from Russell Keat and Richard Norman, which treat the relationship between socialism and liberalism, and the relationship between equality and liberty. Keat argues for the incorporation of a notion of liberal rights within Marxist socialism, whereas Norman attempts to reconcile liberal ideas of free choice with egalitarian principles, employing rather standard arguments against no less standard assertions of the antithesis of liberty and equality. Neither of these discussions contains much that is original, and both are disappointingly lacking in substance.

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Notwithstanding the spurious radicalism of Harris's proposals, none of these contributions penetrates to the really radical questions of man, nature, and society that compose the core themes of the historical tradition of political philosophy, a tradition devoted to comprehensive inquiry into the nature of the human good. Each of the essays defines its problem in relation to, and moves within the terms of, established literatures. Each of them proceeds negatively, attempting to refute already-formulated positions. None of the contributors ventures beyond fairly familiar strategies of argument covering well-trodden ground. Certainly, none of the essays seems fired by the passion for philosophical understanding that is always present in important works of theory.

Ronald Beiner
Ronald Beiner is lecturer in politics at the University of Southampton.

ATTLEE

Kenneth Harris

- 'A biography of scrupulous integrity. The quality of the writing and the fascination of the subject combine to make it a joy to read' - Roy Hattersley in *The Times*
- 'A short review cannot possibly do justice to this monumental work... For comprehensiveness it is almost in the class of Money Penny and Buckle's life of Disraeli: in content and judgment it need not fear the comparison' - Sir Harold Wilson in *The Listener*
- 'Political biography at its best' - A. J. P. Taylor in *The Guardian*
- 'A good, balanced narrative' - Roy Jenkins in *The Observer*
- 'First-class, affectionate, well-written, based on a wide variety of sources' - *Economist*
- 'Kenneth Harris's biography has been eagerly awaited and it fulfils the highest expectations' - Lord Longford in *The Mail on Sunday*
- 'Very attractive and readable' - Lord Beloff in *The Daily Telegraph*
- 'Fascinating and well-judged' - *New Society*

On sale now £14.95

Stock exchange

Malinowski in Mexico: the economics of a Mexican market system by Bronislaw Malinowski and Julio de la Fuente edited with an introduction by Susan Drucker-Brown Routledge & Kegan Paul, £12.50 ISBN 0 7100 9197 4

In 1940 Malinowski and the Mexican anthropologist de la Fuente undertook a field study in Oaxaca; this is the first English publication of their findings. The ethnography, which was published in Spanish in 1957, comprises a portion of materials gathered by Malinowski and his co-workers (including his second wife, Valetta Swann) in 1940 and 1941, and represents the only sustained fieldwork - aside from the Trobriand research - that Malinowski did. Dr Drucker-Brown, a former student of de la Fuente, has edited the original English manuscript (which had been circulated informally) and has provided an extended introduction in which she describes the circumstances in which the work was carried out, presents a general account of its place within the development of anthropology in Mexico, and locates Malinowski's Oaxacan conclusions in terms of his earlier Trobriand studies.

The book's ethnographic significance is slight. Although Malinowski was critical of "armchair intuitions" (anthropology practised by evolutionists and diffusionists), the research presented in this volume is preliminary as Malinowski himself notes several times in the text, and a number of conclusions are highly intuitive, especially in relation to the compulsions of *homo economicus*.

The report was prepared as an introduction to a major study and was devised with the explicitly pedagogical purpose of providing an example of "institutional analysis" (based on the concepts of charter and function) for Mexican students of anthropology. While the effects of this study on subsequent research by Mexican anthropologists are perhaps more apparent in terms of the development of applied anthropology and community planning than they are in terms of ethnographic studies, *The Economics of a Mexican Market System* was a precursor of much market-oriented research carried out by American anthropologists. Malinowski's work appears simplistic by comparison with later work, but his stated aims were modest.

There are three issues raised by the publication of this book. The first is the way in which its belated appearance underlines the general lack of interest in the history of the discipline: the book is in large part the work of a "founding father" yet it has been for practical purposes unavailable for twenty-five years.

The second issue concerns the theoretical status of the study. While the virtues of the Malinowskian version of functionalism in the context of the Trobriand material are embedded in detailed ethnography, in the Oaxacan material the tenets of this functionalism are awkwardly exposed. Not only is the declared object of analysis ambiguous (sometimes it is a market-place, sometimes it is an abstract market stalked by an anonymous demand), but it is also presented with little supportive argument, simply as a natural consequence of human needs. These needs are taken as given for the Zapotec, Mixe, and Mixtec peoples of the Oaxacan region without any serious consideration of the conditions of empire-building and colonial conquest which obviously shaped them. (In the introduction, Drucker-Brown alludes to recent ethological and sociobiological research which, she implies, enhances the status of Malinowski's "needs" thesis).

It is the attempt by de la Fuente to address these more general historical issues that is the third item of interest. It may be assumed that de

la Fuente had little to say about the original version of the study, because at the various points where Drucker-Brown has incorporated de la Fuente's emendations and objections to the original text these have a mildly exasperated or forlorn tone. De la Fuente appears to have been a far more cautious ethnographer than Malinowski. Where the latter was content to insert a generality the former attempted to qualify some of the more obtuse claims.

The major point of disagreement concerns the degree to which the Oaxacan market actually functions as a system unaffected by national and

global trade. De la Fuente's points of dissent are presented deferentially, but since the ones inserted reflect editorial decisions made by Drucker-Brown it is difficult to know the degree to which they indicate more substantial disagreements. Where Malinowski appears as an unquestioning adherent to a formalist version of economic anthropology, de la Fuente tries to rescue the study and suggest, at a minimum, that the market system is not only more complicated than Malinowski suggests, but is a bounded system only if one ignores the significance of the region in the pre-colonial empire as well as

Applauding rationality

Education and Anthropology: other cultures and the teacher by Frank Musgrave Wiley, £13.50 ISBN 0 471 10143 5

A decade or so ago we social anthropologists were being made to feel contrite about our, for the most part, unconscious role in legitimating colonialism. In this book we get it in the neck for doing the opposite and impeding modernization among minority cultures in Britain. The author is an educationist with schooling experience in colonial Uganda. He has taught and done research in British and American universities and has a formidable list of earlier publications. This book "celebrates modernity. It applauds cities, literacy, cognitive skills, and schools; scientific rationality, mobility, and educated elites".

For anthropologists the main interest of Professor Musgrave's book, apart from making us seem much more important than many might have suspected, is the way it turns on its head the anthropological truism about learning of other cultures so as better to understand your own. For Musgrave implies that when anthropologists thought they were just reporting objective reality they were also unconsciously making a subversive statement about their own society and culture. Musgrave swims resolutely against the mainstream of anthropological thought when he assails the dogma of linguistic determinism derived from Durkheim. His discussion resembles C. R. Hallpike's *Foundations of Primitive Thought*. Both authors take the concept of "primitive" straight, without inverted commas. Both invest what I consider a risky credence in Piaget's unilinear and unidirectional scheme of cognitive development. Both evade tough-mindedness in sharp distinction to the tender-mindedness of the soft liberal establishment.

Musgrave has many shrewd points to make, particularly on what he sees as the reification of the "culture" concept. Thomas Kuhn and Peter Winch attract their share of blame for this philosophical error. Now and again the author slips into absurdity, as when he asserts that if one rejects Durkheim's implausible thesis about social groups preceding and giving rise to social concepts, "the entire intellectual edifice of structuralism falls to the ground".

But it is when he comes to the educational lessons to be drawn from his exposure of anthropological illusions that the sinister implications of Musgrave's argument begin to emerge. Musgrave assumes that all "primitive" and "peasant" ways of life are bound to dissolve before the superior power of western civilization and scientific rationality. Leonard Doob's statement to this effect is invoked at least three times and frequent reference is made to Ernest Gellner's modernist manifesto of 1968. Teachers inspired by anthropological romanticism about the virtues of culture and community give those they teach a lying message about the actual state of society and thus deliver their charges to confusion. The proper purpose of schooling is accurately to "transmit" the social structure and norms to children and adolescents to operate efficiently within it. This requires a core curriculum built around literacy and west-

ern scientific culture. In the process the pupil learns to be modern: compulsory schooling from 5 to 16 communicates three truths: that the young are dependent, redundant and have gone public; they have moved out of the private world of kinsmen into the public sphere. (page 144)

I now better understand why my predominant recollection of school is one of overpowering boredom. And why so many of the present generation of white middle-class schoolchildren in Britain are turning down the security of grant-aided university education and opting for the ambiguous freedom of the dole. Because existing society is built on global conflict, technocratic supremacy, and hierarchical domination and exploitation, the dubious "values" associated with these structural features must be inculcated in the young through the schooling process. Scary examples of "conformist thinking" of the kind Professor Musgrave affects to admire bombard us from the Pentagon and Whitehall. Some while ago I knew a young woman in a remote part of Tanzania who is probably the most independent, aware, witty, and happy human being I have ever met. She was also, even proudly illiterate. Instead of "celebrating" school, should we not rather abolish it?

Roy Willis

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Labelled and forgotten

Special Education and Social Control: invisible disasters by Juliette Ford, Denis Mungon and Maurice Whelan Routledge & Kegan Paul, £7.95 ISBN 0 7100 0951 8

Two issues which have fascinated educators for more than a decade are addressed in this book. The notion of special education was highlighted not only by the Warnock report in 1978, but also by the rapid spread of comprehensive reorganization throughout the 1970s; while social control has been considered extensively by sociologists and philosophers.

It was held by some advocates of children who were "special", the singling out of any individual or group was invidious. Therefore brighter learners were not to be segregated, pupils were not to be extracted from regular classes for remedial work, disruptive and maladjusted pupils should be handled within the normal school not sent away, and handicapped children should be educated in their neighbourhood school if it were to be truly comprehensive.

The authors have sub-titled their book *invisible disasters*, arguing that many children are being consigned for social reasons to some form of institution so that society can forget about them. They begin by surveying the period 1880-1980 describing how categories such as "crippled", "feeble-minded" or "moral imbecile" were replaced by "educationally sub-normal" and "maladjusted".

The 1944 Education Act required local authorities to identify children

needing special educational treatment, and from 1950 to 1975 the number of full-time pupils at special schools trebled. The authors show, however, that the number of pupils categorized as socially handicapped increased much more rapidly: those judged to be maladjusted being over twenty times higher in 1975 than 1950, some 13,527 against 587.

Their explanation of this, developed in later chapters, is one commonly advanced by writers such as David Hargreaves: that society has adopted a medical model which holds that the maladjusted are ill in some way and must be cured by the equivalent of hospitalization. Blame is subsequently ascribed to the patient, it is argued, and thus society maintains control over behaviour of which it disapproves by labelling it as deviant and assigning its perpetrator to powerful experts for diagnosis, treatment and, if necessary, isolation.

There are three chapters towards the end of the book in which the authors describe research they have conducted to explore further their hypotheses about the labelling of children. Their first study required teachers to complete the widely used Bristol Social Adjustment Guide on each of 196 children in a primary school, and then rate the extent to which each was thought to be a "problem" on a four-point scale. The authors claim more from the study than the data actually support. There is very high agreement, 80 per cent, between the Bristol guide scores and the teachers' subjective ratings, but by concentrating on the relatively few cases where there is disagreement, the authors claim justification for their earlier arguments, on the labelling of deviance. Their original thesis is a tangle of one, but this particular piece of research, comparing as it does two completely subjective assessments by the same teachers, neither supports or refutes it.

The second study consists of 15 interviews with senior teachers responsible for the referral of maladjusted children and is, as the authors point out, a modest one, and not as informative as the third study which describes the analysis of the personal files of 163 pupils in four schools for the maladjusted.

The referral of boys to such schools was four times as frequent as that of girls, a figure close to the one reported in national surveys, and the percentage of children from ethnic minority backgrounds was nearly 40 per cent. This inquiry, like others, shows the greater likelihood of the children in schools for the maladjusted obtaining lower than average scores on IQ tests, being from a one-parent family, acting in an aggressive rather than withdrawn manner, and coming from an unskilled or semi-skilled social class.

As a whole the book is polemical rather than scholarly, in that none of the three studies is especially rigorous nor really supports the writers' original contention. Indeed opponents of labelling theory could easily argue that the data equally endorse the case against. Nevertheless the authors admit that their research is tentative and small scale, and their case well in the book's earlier chapters. Their own research is conclusive, but classroom observation and in-depth case studies might have offered a more illuminating approach.

Current Affairs which is a subject that at one time (particularly in the nineteen twenties) was very popular with the WEA was now, at the three studies is especially rigorous nor really supports the writers' original contention. Indeed opponents of labelling theory could easily argue that the data equally endorse the case against. Nevertheless the authors admit that their research is tentative and small scale, and their case well in the book's earlier chapters. Their own research is conclusive, but classroom observation and in-depth case studies might have offered a more illuminating approach.

William Forster

William Forster is director of the department of adult education at the University of Leicester.

The Radical Statistics Education Group has just published *Reading Between the Numbers: a critical guide to education research* at £1.25. It examines the reliability of research statistics.

E. C. Wragg

Professor Wragg is director of the school of education at the University of Exeter.

Skill or discipline?

Preparation for Crises: adult education 1945-80 by D. Ben Rees G. W. & A. Heskeith, £12.50 ISBN 0 905777 15 8

A common complaint directed at the British adult educationist is that he is no philosopher: this is reflected in the lack of philosophical writings, the practical rather than conceptual nature of most conference presentations, the still-present suspicion that adult education is more a skill than a theoretical discipline. It is also reflected in the history of the movement which has progressed by a series of practical responses to particular social needs: the movement in the mid-war years to enhance rural life, the need to make provision for millions of servicemen in the Second World War and, more recently, the need to provide for adult illiterates and the increasing number of aged and retired people.

The initial complaint of this book, however, is that the preoccupation of adult educators with "theoretical and philosophical ideas" has diverted them from the facts of economic and political life. Though by the time we arrive at the closing pages the problem is the lack of acceptance by "central government or by the adult population at large" of these "theoretical and philosophical ideas" - a somewhat different matter. Not only is the book confused in its general thesis, it is both muddled and inaccurate in its means of getting there. The survey of ideas informing the adult education movement seen from romanticism ("the majority of workers are not expected to respond to their task in a creative manner as in the days of the craftsman or to show imaginative skill" [page 25]) to testing conundrums; we are told that adult educationists were slow to make use of certain developments, so the work "was left to the voluntary organizations and the local education authorities". The attempt to survey the providing bodies is unbalanced and inaccurate. Of the L.E.A.s (why only 13? If the researcher gets no answer to his letters should go and look), Merseyside County Council is given 14 lines, Bedfordshire four pages, London does not exist. The brief account of the role of the D.E.S. ignores the fact that it is structured like any other government department. "All university internal departments are very reluctant to be involved in the education process of the local community" the book announces; this is an outrageous statement.

The book, we are told, is the development of a PhD thesis. Was the thesis devoted to the questionnaire answered by 42 WEA students in Liverpool and the case-study? Without a control group, the sample would be much as the average bus queue or church congregation would be. Or was the thesis the origin of the brief account of the WEA and the TUC? Whatever it was, there is nothing scholarly about the mis-spellings, the changes of names within the text, the frequent absence of the definite article, the way in which singular nouns attract plural verbs, or the contortions of syntax. An example of the author's style:

Current Affairs which is a subject that at one time (particularly in the nineteen twenties) was very popular with the WEA was now, at the three studies is especially rigorous nor really supports the writers' original contention. Indeed opponents of labelling theory could easily argue that the data equally endorse the case against. Nevertheless the authors admit that their research is tentative and small scale, and their case well in the book's earlier chapters. Their own research is conclusive, but classroom observation and in-depth case studies might have offered a more illuminating approach.

And what, R. H. Tawney, would you make of that? Elegance can avoid that risk.

William Forster

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E. C. Wragg

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BOOKS Discipline building

From Medical Chemistry to Biochemistry: the making of a biomedical discipline by Robert E. Kohler Cambridge University Press, £22.50 ISBN 0 521 24312 2

Many of the medical sciences which put on modern dress in the nineteenth century have reasonably specific origins. The genesis and early growth of experimental physiology, pharmacology, bacteriology and immunology can be charted with fair precision. Less so biochemistry, which has relevance for - and roots in - organic chemistry, biology, physiology, clinical medicine, pathology, botany and agriculture.

Even its name (short for "biological chemistry") only gradually triumphed over a plethora of alternative labels, including chemical physiology and animal, medical or physiological chemistry. For much of its history from the mid-nineteenth century to the First World War, biochemistry was a somewhat disparate body of knowledge, techniques, concepts and individuals. Its practitioners were alternatively squeezed by physiologists, organic chemists, and clinicians, yet were intent on building a new discipline.

Robert Kohler's book is about the dynamics of this discipline building. He examines, with increasing detail, the institutional and professional patterns in Germany, Britain and the United States, above all in the universities and medical schools, where early biochemists sought to stake out their own special territory. Patterns and problems differed in diverse cultural and academic contexts. In Germany, where the research institute was the primary unit of academic innovation, the stature of Justus von Liebig (1803-1873) made organic chemistry one of biochemistry's major sources of patronage and ideals as well as an object of Oedipal tensions.

In Britain, experimental physiology was the dominant background discipline. By the early twentieth century, most physiology departments employed someone to teach "chemical physiology", as Sheridan Lea did in Michael Foster's Cambridge department, or W. D. Halliburton in the University College London department. Autonomy came slowly, even after Benjamin Moore secured Britain's first independent chair of biochemistry (Liverpool, 1902). F. Gowland Hopkins's long wait at Cambridge is legendary; brought to Cambridge by Foster in 1898, his chair did not come until 1914 and only from 1920 did a large endowment from the estate of Sir William Dunn allow Hopkins to develop a proper research department. Biochemistry's determined faculty location (organic chemistry had been in science faculties, physiology usually in faculties of medicine), colleagues, clients (chemists or medical students), and kind of research problems likely to receive recognition and funding.

These European themes were part of the American story, which is Kohler's primary focus, for Old World ideals informed the reformist activities of Abraham and Simon Flexner and others who sought to raise the standards of American medical education, research and practice around the turn of the century. Without dominant traditions in physiology or organic chemistry to contend with, early American biochemists like R. H. Chittenden at Yale or V. C. Vaughan at Michigan developed programmes within the heady atmosphere of expansionist higher education, where the percentage of the 18 to 21 years-old cohort attending colleges or universities rose steadily from 1.7 in 1870 to 15.2 in 1940.

There were, however, strong pressures to keep American biochemistry located within the medical schools, where money was easier to

find. Both authors are presenting an axiomized system of geometry. But to appreciate Euclid for himself it is important not to let that shared description blind us to fundamental differences in what an axiomatic treatment might mean in his day and ours.

For a start, Euclid does not command the resources of modern logic, and this is not just the absence of a convenient tool. Mueller focuses on the absence of any means to represent explicitly the logical step of universal generalization. Of course Euclid assumes that a proof conducted by reference to a particular geometrical object is generalizable to other objects of the same kind; but he cannot display his justification. This leads to an important contrast between ancient and modern axioms.

Euclid's first postulate demands the possibility of drawing a straight line connecting two points when the points are given. Euclid, that is, constructs geometrical objects individually, as they are needed, whereas Hilbert's axioms are cast in terms of an existent system of objects: his first axiom, for example, simply asserts the existence of a straight line for any two points. (Thus the emphasis on constructibility in the *Elements* is rather differently motivated than it is in modern constructivist philosophy of mathematics.) As Mueller investigates the logical procedures Euclid employs, we come to see that, and why, there is no question of interpreting Euclid's axioms, in the way Hilbert's can be interpreted, as specifying the subject matter of geometry as a certain structure. Euclid's commitment to individual geometrical objects as the subject matter of geometry is inseparable from the methods available to him.

The full import of this conclusion becomes apparent as one goes through Mueller's detailed examination of the contents of each Book of the *Elements* in turn. Throughout his study, Mueller reasserts the essentially geometric character of Euclid's thinking against those scholars who have heaped large tracts of the *Elements* as algebra in disguise.

The question of Greek "geometric algebra" has recently been the subject of hot debate. Mueller raises the whole discussion to a more sophisticated level by sorting out the various things that can be meant by the claim that Euclid has a geometric algebra and allowing full weight to the considerations which favour an algebraic interpretation. He concludes that there is no genuine algebraic thought in Euclid. There is a recognizably algebraic and geometric, but no attempt to abstract the common (structural) features of arithmetical and geometrical objects. And this holds even for Book V, which develops the theory of proportion for magnitudes in general. Mueller argues that these magnitudes do not include numbers. They are abstractions from geometrical objects which leave out of account all properties except quantity, that is, length for lines, area for planes, volume for solids, and size for angles. Thus Euclid maintains the standard Greek separation between continuous and discrete quantity; arithmetic and algebra are kept each to their own realm.

This scrupulously objective exploration of the conceptual world of the *Elements* is interdependent with Mueller's careful mapping of deductive relationships between one Book and another and between different propositions within each Book. Bit by bit the architecture of the whole comes into view, to show us each detail of the monument in its proper significance. And all this in a volume which is as beautiful a piece of book production as any on the art-historian's shelf.

The *Elements* is harder to understand and admire than monuments of stone, and Mueller's book is technical, demanding, and loaded with logical and mathematical symbolism. But for a student of the classical world to ignore Greek mathematics is like going to Athens and not looking at the Parthenon.

M. F. Burnyeat

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BOOKS Euclid's axioms

Philosophy of Mathematics and Deductive Structure in Euclid's Elements by Ian Mueller MIT Press, £26.25 ISBN 0 262 13161 3

Euclid is a monument, and monuments are an invitation to the historian's backwash. When historical investigation has shown how that detail derives from here, this one from there, the thing itself disappears into the fragments of its prehistory.

Certainly Euclid's *Elements* has suffered more than its fair share of such probing. No sooner had it ceased to be everybody's school textbook than historians undertook to show that Book X was due to Theaetetus, Book V to Eudoxus, other Books or parts of Books to assorted Pythagoreans. Never mind the learned qualifications that were attached to these claims. The impression one forms on first delving into the specialist literature on Greek mathematics is that Euclid himself is nothing but a clearing house for the great mathematical minds who preceded him.

But that is not how the Greeks themselves regarded the *Elements*. Already in antiquity it was a monument; one referred to it as the authority and made it the subject of commentaries. A more kindly historian would respect that achievement, would take the work as it stands and has stood for so long, and study each detail for what it contributes to the articulation of the whole. It is this more sensitive approach that Professor Ian Mueller has chosen, and it is a large part of what makes his book so rewarding.

Mueller begins with an extended comparison between the procedures with which Euclid launches his subject at the beginning of Book I of the *Elements* and the opening pages of Hilbert's *Grundgesetze der Geometrie* of 1899. The aim is not to judge Euclid, to award him good or bad marks by modern standards of rigour, but to understand how his presentation of the subject differs

from our own. Both authors are presenting an axiomized system of geometry. But to appreciate Euclid for himself it is important not to let that shared description blind us to fundamental differences in what an axiomatic treatment might mean in his day and ours.

For a start, Euclid does not command the resources of modern logic, and this is not just the absence of a convenient tool. Mueller focuses on the absence of any means to represent explicitly the logical step of universal generalization. Of course Euclid assumes that a proof conducted by reference to a particular geometrical object is generalizable to other objects of the same kind; but he cannot display his justification. This leads to an important contrast between ancient and modern axioms.

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The Olmecs of ancient Mexico invented the art of glyptic dating and were the first great carvers of stone and jade. This Olmec jadeite mask is reproduced from *The Ancient Kingdoms of Mexico*, by Nihel Davies (Allen Lane, £12.50).

Political epidemic

Pure Politics and Impure Science: the swine flu affair by Arthur M. Silverstein Johns Hopkins University Press, £8.75 ISBN 0 8018 2632 2

The dramatic impact of epidemic disease on human society is well known: the great influenza epidemic of 1918 caused more deaths throughout the globe than did the whole of the First World War. This book provides an account of a relatively trivial outbreak of influenza in America in 1976 from which followed a remarkable train of social and political events involving the entire nation. Although these events have already received attention in many journals and books, Dr Silverstein's book is an attempt "to set straight the official record" produced by Professors Neustadt and Fineberg of Harvard University in *The Swine Flu Affair* (US Department of Health, Education and Welfare, 1978).

Dr Silverstein, who holds a chair in immunology at the Johns Hopkins School of medicine in Baltimore, was seconded in September 1975 on a one-year assignment to assist in the scientific issues debated by the Senate Health Subcommittee chaired by Edward Kennedy. He thus became a witness to and was later involved in the deliberations in political circles upon the events which followed the influenza outbreak in an army camp in New Jersey. These culminated in President Ford's announcement in March 1976 that vaccine would be provided to inoculate the entire American population against a threatened nationwide influenza epidemic arising from the virus which caused the army outbreak and which had been identified as swine influenza virus.

This virus, first isolated from pigs in the United States in 1931 by Richard Shope, has regularly caused epidemics of swine influenza in the Middle West herds. Although only a few human cases of disease were recorded (and those were linked with contact with pigs) and although the virus had not been found in human epidemics since it was first isolated, antibodies neutralizing the virus were found to be present in a high proportion of adults of 50 years of age and over. This fact and the knowledge that past influenza pandemics origin-

ated from the sudden appearance of a "new" strain of influenza led to the opinion that either the same virus or a close relative caused the world epidemic of influenza in 1918-19. The advisers to the Secretary of Health Accordingly recommended 100 per cent vaccination of the population.

Dr Silverstein devotes many pages to the influenza viruses, their strange and unpredictable chemistry and their variable nature. Knowledge of all these matters, however, did not prevent the scientists giving the wrong advice. For their reckoning that an epidemic was "probable" and that the form of this epidemic might be a repetition of 1918 was completely upset by the failure of the epidemic to materialize. The President's requisition of dollars to immunize over a hundred million Americans of all ages was hence unnecessary and in the end the campaign ended when only 40 million adults had received inoculations of vaccine.

Much the most interesting part of this book is the account of the Congressional Act which was necessary and which led to a turmoil of discussions in Congress and the Senate. The need to indemnify the manufacturers from legal action for possible adverse effects of the vaccine made American history and after the campaign law suits resulting from the effects of the vaccine have been directed at the Government. Public opinion ultimately changed when it was understood that the preventive efforts were unnecessary, leading administrators were dismissed and there was even a temporary reduction in the acceptance of all vaccines.

One may indeed ask why the Government did not halt the campaign as soon as it became apparent that no epidemic was materializing. The spectre of 1918 influenza, the efficacy of the vaccine itself in the first carefully conducted trials and the politicians' fear that they would be blamed, all reacted together, Silverstein considers, so that those who cried "halt" were swept aside. One expert had it that it was "better to stockpile vaccine in persons than in warehouses". This is much the best account of this strange chapter of influenza history. Although the advice to prepare the vaccine was undoubtedly correct, it is surprising that Silverstein supports the decision to mount the immunization campaign as well.

Charles Stuart-Harris

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BOOKS

ENGLISH

Fiction as mask

Staff of Sleep and Dreams: experiments in literary psychology by Leon Edel
Chatto & Windus, £15.00
ISBN 0 7011 3905 6

This book is Leon Edel's own selection of his essays in the type of "literary psychology" he has made famous. The essays are very varied: some are autobiographical, recording Edel's own meetings with Adler and James Joyce, and his friendship with Edmund Wilson. Others are theoretical, explaining the nature of "literary psychology". Most are psychological and critical studies, analysing a wide range of writers including Thoreau, Tolstoy, Willa Cather, Edith Wharton, Joyce, T. S. Eliot, W. H. Auden, and, of course, his perennial subject Henry James.

The central questions raised by the book concern the relationship between a literary work and, not just the life, but the psychology of the writer. What kind of emotional stresses give rise to this work? How far are novels peopled by the author's personal anxieties? How much is literature itself the creative result of neurosis which in others would cause mental illness?

Theoretical writing is not Mr Edel's strong point and he is much better at doing "literary psychology" than saying exactly what it is. In practice this is a very individual mixture of biography, psychoanalysis, and literary criticism. But its purpose is not always clear. At times literary texts are used to illumine the life, as in an essay on "The Mystery of Walden Pond", which sees Thoreau's *Walden* as an expression of his inability to leave his maternal home and to develop mature human and

sexual relationships. At times a careful balance is achieved between the two: an analysis of Edith Wharton's last completed tale, "All Souls", sees it as an eerie fantasy which announces her impending death.

Much of this is provocative, but at times this kind of criticism falls between all the stools, as in the series of essays on Joyce. Here Edel moves from autobiographical accounts of his own meeting with Joyce to an analysis of Joyce's extreme paranoia, egotism, and sexual fetishism; and from there all too rapidly to a final judgment on Joyce's literary work: "The flaws in his personality are the flaws in his art." It seems inexcusable to offer such an assessment without a much fuller analysis of the nature of that art, and to take a more imaginative account of the author's "presence" in it. Edel takes no account of the whole Lacanian re-reading of Freud or post-structuralist studies of Joyce which approach this subject in ways that involve a radical re-definition of such terms as "author" and "text".

Much stronger, however, is the whole central section of the book which explores the relationship between melancholia and creativity. Here, in "The Madness of Virginia Woolf", Edel analyses Virginia Woolf's creative energy in terms of her profound and unexpressed grief for her mother's death, and her repressed hatred for her brother, who sexually abused her. He explores the symbolism of Willa Cather's *The Professor's House* in terms of her yearning for her own "fixed abode", and her painful rejection from the house of Isabella McClung which, in the 1890s, had given her a profound emotional security. He studies also, in an imaginative and personal essay, Edmund Wilson's complex discovery of himself as that kind of critic who exercises the power both to hurt and to support "The Critic as Wound-Dresser".

The most ambitious essay in this section, however, is a study of the relationship between Eliot's early creative and critical writing and the complex psychological crisis that resulted in Eliot's impulsive marriage to Vivian Haigh-Wood and the breakdown that took him to therapy with Roger Vittoz in Switzerland in 1920.

Edel focuses on what Eliot called his "lifelong affliction", his "aboulia" or "failure of the will". In exploring the sources and significance of this, Edel provides a provocative background for a reading of *The Waste Land*.

As a group these essays show both the weaknesses and strengths of this type of criticism. The limitations are evident: the approach assumes Freudian paradigms, such as Oedipal tensions and castration anxieties, which are never in themselves questioned or indeed discussed. Freud's *Mourning and Melancholia*, which would seem central to the middle chapters, is not even mentioned. In addition, the essays offer psychological narratives which are, in effect, fictions themselves, so that, in a sense, fiction is being used to verify fiction. Finally, Edel asserts as self-evident "that all literature is a form of disguise, a mask, a fable, a mystery; and behind the mask is the author"; but this has been shown to be a highly questionable assumption.

And yet, at their best, these essays command attention. Edel does not shrink from what is bold and provocative. His finest writing is distinguished for its powerful recreation of the intense emotional and psychological experiences that give rise to creative writing. And he leaves his reader with haunting connexions between the painful emotional experiences these writers have endured and the literary works which symbolically make them public.

Frank Stack
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Closer to Coleridge

Cowper's Poetry: a critical study and reassessment by Vincent Newey
Liverpool University Press, £14.50
ISBN 0 85233 344 6

Cowper's odd, uneven, important achievement needs more sustained criticism than it has received. We have good chapters by Patricia Meyer Spacks and Richard Feingold, good pages by Donald Davie, but only one worthwhile critical book - Morris Golden's *In Search of Stability*, now more than twenty years old. A brilliant thesis by Martin Priestman has been accessible since 1976, but the book based on it will not be published by Cambridge University Press until next year.

A gap therefore exists which Vincent Newey's work has the right shape, and some of the right substance, to fill. It moves from the *Moral Satires to The Task* (three chapters on which occupy nearly half the book) to the best of the hymns, and shorter poems, and includes a good deal of patient and perceptive close criticism. As a "re-assessment", it brings Cowper closer than before to Wordsworth and Coleridge: this is not the side of Cowper that has been best illuminated lately, and the Romantics themselves looked different in the days when he was seen as a "pre-Romantic".

Cowper was, of course, an accurate descriptive poet: but he was much more. Following a lead from Spacks, Mr Newey shows that the best descriptions in *The Task* are charged with the feeling and intuitions of the participating observer, just as the most impressive passages of self-exploration are those mediated through a landscape. Without theorizing about it, Cowper developed a new kind of poetry much closer to Frost at *Midnight* and Tintern *Abbey* than to the moralized descriptive kind practised by Thomson. From an experience of rehabilitation he drew a sense that man's life is linked with that of the natural world and that his well-being depends on an interplay between the two, as also between his past and his present, sanctioned by God. This intercourse with nature is felt by Cowper as a means of grace, to the extent that in the more confident parts of *The Task* God is absorbed into a divinized natural world. Cowper did not, of course, reject revealed religion, yet in a sense his poetry undermines it, and it is remarkable how little real interest he shows in the Christian Redeemer. Though Mr Newey's specific parallels

with Wordsworth and Coleridge are sometimes pushed a bit too far, he makes his main comparison good and gives convincing readings of some of the finest passages in *The Task*.

Cowper communes with nature "against a background of felt socio-cultural dissolution"; but on this theme neither he nor Mr Newey has so much to offer. When Cowper looked at the public world, change and decay was what he saw, and no role requiring lamentation was uncongenial: classical satirist, Evangelical preacher, even (as in his super-patriotic denunciations of the Peace of Versailles) Cheltenham colonel. Most of what he says about commerce, industry, the universities, the church, politicians, generals, is just middle-aged worrying and grumbling, strongly felt but vaguely thought. His loftier strains of this kind do not amount to social criticism but to the rejection of all possible societies. Mr Newey concedes as much, yet still claims an honourable place for *The Task* in that vast Literature of Disapproval, Chaucer to the Present Day, which is so many people's favourite syllabus. The naive and virtually tautologous line "Disinterested good is not our trade" is quoted more than once as though it exposed the pretensions of empire. Comparing Cowper with the optimistic Thomson, Mr Newey asks: "Who could deny that Cowper has the surer instincts and better judgment?" Any one could who does not see the British eighteenth century as a period of all-round decline.

One of Mr Newey's best chapters is devoted to "The Receipt of my Mother's Picture": his sensitive reading leads to a salutary shock, when he shows how closely the poem conforms to M. H. Abrams's specifications for "the greater Romantic Lyric". Some acute points are also made about "The Castaway". Mr Newey writes well, and with an alert command of critical material. It is a pity he misquotes the letters so often (I noted nine verbal misquotations), and in chapter one an extra word or two of acknowledgement to Brian Spiller and Lodwick Hartley would not have come amiss.

The book is, however, handsomely produced and has a particularly good index. Cavils apart, it is an illuminating book and one to be grateful for.

Derek Roper
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Dramatic genres

The Collected Papers of Muriel Bradbrook
volume one: The Artist and Society in Shakespeare's England
Harvester Press, £18.95
ISBN 0 7108 0391 5

This collection comprises 12 articles or lectures written between 1958 and 1980, most of which have already been published.

In a long introduction to the collection, Professor Bradbrook surveys the development of Shakespearean criticism from T. S. Eliot in the twenties to what she calls the "Do-it-yourself-Shakespeare" of the last decade (which she clearly dislikes), and states her belief that "the sanity of Shakespeare's plays will enable them to survive even the wildest excesses of deconstruction. Here she also throws interesting light on her own methods of research: "Sometimes", she tells us, "I would read a great play twenty or thirty times, along with all the minor plays that have survived. I know no substitutes for laminating the text into one's mind in a variety of moods and settings." This width and depth of reading criticism to locate a play in its proper tradition, to identify the theatrical conventions and recognize what the dramatist has drawn from the common stock of literary or iconographical tropes. By this means the best of these essays force us to make radical re-evaluations of the most familiar plays: where this comparative dimension is lacking, however, when Professor Bradbrook stays within the limits of the play itself, as in the essays on *Hamlet* or

Measure for Measure or *Henry IV*, the results are, I think, less interesting.

The collection is divided into two sections, the first, on "the emergence and retreat of drama", mainly concerned with social background and the second, "Shakespeare and the performer's art", with theatrical conventions. For the emergence of drama, she opens with a fascinating study of the plight of the non-dramatic poet in the Elizabethan period, the problems facing the young Spenser anxious to rise to court where patronage was a more uncertain thing than it had been in Chaucer's day, and where the new printing press opened up tempting but uncharted territories. To do so in print was a real question, and Spenser chose wrongly on at least one occasion.

This is followed by an essay on *Uranian* and *Adonis*, not as a poem in its own right but as a gesture by Shakespeare against the contempt in which the theatre had traditionally been held, a self-confident assertion that the drama had indeed arrived, and that a player poet was good enough, if he chose to do so, to beat the humanists at their own game of poetry. The retreat of the drama is illustrated from the poetry of Marvell, written at a time when the masque had superseded the drama as the dominant form and was itself in decline. Professor Bradbrook shows how the element of masque penetrated the very texture of Marvell's poetry, in the dialogue form of which he was so fond, and, particularly, in the changes of scene and perspective throughout *Upon Appleton House* which repeat in literary form the elaborate transformations of scene engineered by Inigo Jones in the Court theatre.

The second and longer section of the book attempts to recover conventions which have been lost for the modern reader. Such a convention is what Professor Bradbrook calls the "elderly" tradition, which goes back to the medieval Titivillus plays or the gargoyles, or the poetry of Dante, and was still flourishing in the sixteenth-century jestbooks. Its essence was horseplay and grotesque exaggeration, the pulling off of limbs and changing of heads, and it usually occurred in connection with dealings with the dead. In the light of this, the low comedy of *Dr Faustus* would seem to belong properly with the main theme, to constitute, in fact, the traditionally comic side to the tragic penny rather than being mere interpolations to please the groundlings. Again, chapter six, on "Shakespeare's primitive art" shows the dependence of dramatic spectacle upon popular iconography. When Tamburlaine uses Bajazet as a footstool to mount his chariot, his action would remind the audience of the frontispiece of Foxe's *Bull of Marigny*, to be found in every church in England, where Henry VIII is shown as using the body of the Pope to mount his throne.

Shakespeare's imagery draws heavily upon such sources; and similarly the scenes and properties of his later plays in particular - the cave, the ship, the living statue, the may-queen, the monster, the magician - are re-fashioned out of the common stock of earlier "medley" literature. To take a final example of Professor Bradbrook's method, she emancipates *The Taming of the Shrew* from the contemporary feminist debate and sets it where it historically belongs, in the line of "shrew" literature which goes back through medieval fabliaux and the Wife of Bath to the ancient world. In this tradition, the shrew normally triumphed: the originality of Shakespeare's treatment lies in his making the husband triumph by using the shrew's traditional methods against her.

In this way, Professor Bradbrook fits in the low ground and restores life and meaning to what, for us, are often the most tedious parts of *Titus Andronicus*. By her own remarkable knowledge of plays, popular literature, iconography in every form, from the Elizabethan chap-books to the carving on Elizabethan jewels, she makes us aware as no other writer can of the multitudinous richness of the dramatic tradition upon which Shakespeare, his fellow dramatists and his audience could draw. These essays embody a fruitful and essentially new relationship between scholarship and criticism. I look forward to the second volume.

Maurice Evans
Maurice Evans was formerly professor of English at the University of Exeter.

BOOKS

ENGLISH

Eliot as UFO

T. S. Eliot: the critical heritage, two volumes edited by Michael Grant
Routledge & Kegan Paul, £15.00 per volume; £25.00 the set
ISBN 0 7100 9224 5 and 9225 3;
9226 1 (the set)

"So long as you gave Mr Eliot images of someone being 'tortured' and wrote William Empson, 'his nerves were at peace, but if you gave him an image of two people making each other happy and contented', Orwell, on the other hand, considered that 'by simply standing aloof and keeping touch with prewar emotions, Eliot was carrying on the human heritage'. Neither comment appears in this *Critical Heritage*, which seems planned more according to quantity than to quality of insights.

Perhaps it is the peculiar nature of the subject that causes this lack of focus and engagement. To most readers, presumably, Eliot's nonchalant despair and artful indifference represent an asylum from the row of public and private politics. But, as Edmund Wilson pointed out in *Mr Eliot's Castle* essay (not printed here), there is something disquieting about the kind of asylum Eliot offers. "That combination of practical prudence with moral idealism which shows itself in its later development as an excessive fastidiousness and scrupulousness", he wrote, "that dark scrutiny of passions inhibited - leaving aside the question of whether the Victorian novel didn't die in 1922 but was subsumed by literary criticism, what Wilson is really intimating is that political asylum may turn out to be a lunatic asylum. Wilson's essay seeks to place Eliot under a novelist's social arrest: he is shown from the outside as a cultivated New Englander; the stranger becomes a familiar type. But there is some desperation in the attempt because the type Wilson seeks to fix is the dominant intelligence of the century, an intelligence that is anti-novelistic because concerned only with essence and futurity. Against Wilson's contention that "the criticism of our own day examines literature, art, ideas and specimens of human society with a detached scientific interest... that seems to lead nowhere", we might set the vignette of Eliot sitting primly in Oppenheimer's Institute for Advanced Study: see Freeman Dyson's *Disturbing the Universe*.

Certainly the incoherent rage and fear of some of the early critics suggest that for them Eliot is more like the Man Who Fell To Earth than a genteel American. Apart from the fact that he is blond, drunk, clever, disgusting, a parlor prestigitator, and subject both to premature decrepitude and Premature Apoptosis, he is anarchic (Waugh), fantastic (F. L. Lucas), and unable to communicate (J. C. Squire). The latter pugnaciously squares up to Eliot's spiritual anemia: "Our civilization appears at least as vigorous as it was a century ago, and the urban ugliness and the emptiness of the lives of many people, rich and poor, is no new thing - neither is the exaggeration of it from the outside".

The best of this early criticism also bears out: Wilson's contention, by adding carefully to the poetry, as though at a grounded UFO. There are outstanding essays by May Sinclair, Desmond McCarthy and E. E. Cummings on the quality of Eliot's obscurity. For May Sinclair it is "an obscurity of remote or unusual objects, or of familiar objects moving very rapidly... His thoughts move not by logical stages and majestic roundings of the full literary curve, but as live thoughts move in live brains". McCarthy sees Eliot as a Milton indulges in slang or draws Browning's poetry was described by Browning as "that old Jew's curiosity shop". Eliot's is to be compared with a modern curio shop containing a few choice objects. "He is like a

dumb man who is trying to explain to us what he is feeling by taking up one object after another... not intending that we should infer that the object is the subject of his thoughts, but that we should feel the particular emotion appropriate to it". Cummings elaborates on Eliot's technique - by which he means "an alert hatred of normality": he finds in the poems "a vocabulary almost brutally turned to attain distinctness, an extraordinarily tight orchestration of the shapes of sound; the delicate and careful murmurings... of established tempos by oral rhythm".

If these essays illustrate, almost helplessly, the way in which Eliot paralyzes moral speech (so that criticism is reduced to description or parody; but there are no parodies in these po-faced volumes), a few people attempt to investigate Eliot's human credentials, either directly, like Morton Zabel, who sees Eliot voicing a generation's voluntary surrender to "a type of sensibility which is fundamentally chaotic and ruinous", or indirectly, like Allen Tate, who compares Eliot to Gray as a poet who never spoke out. The most drastic criticism in volume one is by John Crowe Ransom who finds in Eliot a fundamental failure of the creative imagination; the weirdest - partly because of the editor's decision to leave intact paragraph headings from the *Sunday Times*, so that the essay reads like a concrete poem - is by Cyril Connolly who applauds Eliot's staying power, his "political long-

life", and clearly regards him as large beer.

Volume two strikes a new note. "As long as critics feel the obscure uneasiness which an incompletely understood subject-matter gives, rational discussion of a poet's achievement is impossible" - thus Helen Gardner thrusting impatiently through the doubts and hesitations. "Rational discussion" ushers in a series of literary-theological exegeses cast in the lunar language of university culture. Humans are warned away from this volume: with the exception of Orwell's well-known essay about Eliot's "glowing despair", an incisive piece by V. S. Pritchett who gets to the core of Eliot's strangeness ("he is deliberately intellectual" where the sentimental century poets "were men with naive hearts who do not think naively"), and a prodigious essay by William Arrowsmith on the defects of *The Cocktail Party*: "it is this failure of his own Christianity that impoverishes Christian society the play is trying to create". The volume ends with Frank Kermode reminding us that all the academic study is useless. "Forget the ritual responses of the classroom: read as if you'd seen the poems before... *The Waste Land* is a damned difficult poem". Back to the UFO.

S. J. Newman
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Word patterns

The Development of Milton's Prose Style by Thomas N. Corns
Oxford University Press, £12.50
ISBN 0 19 811717 5

Dr Corns's work originates in the belief that previous accounts of Milton's prose neither identify what is really unique to him nor adequately describe how his style changes. Most critical comment, he argues, either "too eclectic and impressionistic or, where it makes an approach to linguistic analysis (as in R. D. Emma's *Milton's Grammar*), it is rendered suspect by arbitrary and insufficient statistical sampling.

Corns establishes a firm methodological base by means of computer analysis of 3,000 word samples (taken from the beginning of every Miltonic tract, together with similar samples from a range of contemporary pamphlets selected for comparison. Hard information is thus provided, by means of tables which punctuate the account, of such items as word frequencies, lexical features (such as neologisms, compounds, unusual juxtapositions of words), syntactical characteristics (such as incidence and positioning of adjectives, verbs, participles and coordinating conjunctions), sentence length and structures, and - with playful caveats about deciding exactly what constitutes imagery - the incidence and types of both biblical and non-biblical imagery.

Brief though this Oxford monograph is (118 pages), one is aware of the immense and surely often numbing labours that went into its compilation. Many areas hitherto the subject of conjecture are provided with the sort of documentation that renders them no longer speculative. Some of the conclusions demonstrated, for example, it can hand-me-downs: in Milton's early anti-prelatical pamphlets, there is a flamboyant and linguistic inventiveness, a lexical brilliance which generates interesting, often satirical, neologisms (both by borrowing from foreign languages and from the resources of the vernacular), uses a variety of synonyms for recurrent concepts, and exhibits a high incidence of imagery.

But there are other critical orthodoxies about Milton's prose style which are shown to be untenable. There is no evidence to suggest, for example, that Milton indulges in slang or draws Browning's poetry was described by Browning as "that old Jew's curiosity shop". Eliot's is to be compared with a modern curio shop containing a few choice objects. "He is like a

more complex than contemporary practice in the same genre, and there are few elements in Milton's syntax to distinguish him from the mainstream of contemporary pamphleteers.

What the computer analysis does confirm, however, is the marked shift in the "feel" of Milton's prose when an early pamphlet, such as *The Reason of Church-Government* (1641), is compared with a late tract such as *A Treatise of Civil Power* (1659). There is a declining enthusiasm for complex metaphoric structures, the imagery is more functional and precise, there is lexical sobriety and syntactical neatness. (An exception to this is Milton's deliberately too-late *The Ready and Easy Way to Establish a Free Commonwealth* [1660] which harks back to the stylistic characteristics of the early tracts - probably, Corns suggests, because Milton, in attempting to revive the spirit of the Good Old Cause, revives too the brilliance of polemic that went with it.)

The second half of the book subjects the intervening tracts of 1643 to 1649 (including the *Divorce pamphlets*, *Areopagitica* and *Of Education*) to similar minute analysis, among them Roger Williams's *Bloudy Tenent*, Daniel Featley's *The Dippers Dipped* and Charles Eskin's *Basillike*. This part of the study attempts to investigate when and how the changes in the fabric of Milton's prose occurred. The pamphlets of 1643 to 1645 are stylistically similar to the earlier tracts - his images have a strong narrative or dramatic quality, his neologisms have a pointed playfulness, synonyms abound, and there is an abundance of surprising verbal collocations more zestful than those of his contemporaries.

The first major shift occurs in 1649, from which point on Milton transforms his style, abandoning synonyms, pruning imagery, using fewer adjectives: "step by step Milton dismantled what was possibly the most exhilarating and inventive prose style of the seventeenth century and replaced it with a spare functionalism".

Dr Corns has provided us with a wealth of statistical information about the character of Milton's prose styles, and he has done so elegantly and in a discourse which is rich in both examples and insights. On the question of the reasons for the changes in Milton's style he is properly cautious. He is surely right however in suggesting that the development cannot be explained away in terms of falling artistic ability. Nothing (as others have done) the exuberant naivety of the anti-prelatical tracts, Corns suggests that "change should probably be regarded not so much as a falling off as a growing up".

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A Companion to Old and Middle English Studies
by A. C. Partridge
Deutsch, £12.95
ISBN 0 389 20287 8
English Medieval Narrative in the 13th and 14th Centuries
by Piero Boitani
Cambridge University Press, £25.00
ISBN 0 521 23562 6

We all feel the desire to synthesize, to break down categories, to avoid producing the bare political historian or the student of medieval literature who knows no more history than the date of the Norman Conquest. A. C. Partridge's declared aim is "a synthesis of cultural, political and language elements", to demonstrate the importance of "formative ideas" in a nation's evolution. Unexceptionable, of course, but tremendously difficult of achievement.

This *Companion* contains a good deal of useful historical material, but it is often compressed into not very readable sentences and disconnected paragraphs. "Some Aspects of Old English Grammar", on the other hand, is a clear and efficient summary, but inevitably it is a separate chapter. The author, in fact, seems most at home with the phonological, morphological and prosodic features of earlier English, far less happy with anything approaching literary criticism. I cannot believe that anyone who has not yet read *Pearl* or *The Testament of Cresseid* will be encouraged to do so by their treatment here, and those who have already done so will not learn very much more. The failure to keep a particular audience in view raises the inevitable question: Is *A Companion* someone with whom you set out on a journey or someone you meet along the way, a beginner in the Middle Ages or a knowledgeable - although not necessarily experienced - traveller?

Professor Partridge's heroes are Wyld, Wright, Jespersen, Ker, Mailand and C. S. Lewis, giants of their time and still gigantic but whose views have been qualified or supplemented by later scholars. No A. C. Cavley or Norman Davis on drama here, no E. J. Dobson on *Ancrene Wisse* or Michael Swanton on *The Dream of the Road*, almost no criticism of *Piers Plowman* after Chambers. Once or twice, too, the way of putting it is not very satisfactory. It is fortunate to say that *Beowulf* (with no mention at all of Christ and little of charity) was transposed into "something consonant with the New Testament"; the Dominican order was hardly "closed down" in 1599; Langland did not become a London chantry priest; the three ladies of Kilburn are no longer serious contenders for the recipients of *Ancrene*

Review; an inexperienced reader might be led astray by the ambiguity of Chaucer translating part of the "5000 lines in English" of the *Roman de la Rose*. Most specialized terms are fully and clearly defined, but a few such as *Germanic, nonce-forms, paratactic* and *phonemic* might puzzle a first-year student. As a reference tool the book has undeniable value, but as a synthesis it falls short of what is perhaps a nearly impossible goal.

Piero Boitani's title might seem ambitious too, but he is too sensitive and pragmatic a critic to offer anything like a theory of late medieval narrative. Consequently his chapter-headings speak of religious and comic traditions, the world of romance, dream and vision (covering some rather different poems) and narrative "collections" (structures). This is not as heterogeneous as it might seem; in each case he works from the comparatively straightforward realization of the idea (*exemplum*, for example) towards the complex narrative with more intricate plot, realism of detail or psychological awareness. The second half of the book is devoted to Chaucer, who both used a great variety of narrative forms and greatly transformed what he inherited. Comparison with other medieval European writers, in particular Dante and Boccaccio, gives breadth to the study and sometimes originality too, for instance the claim for a greater dependence of *Troilus and Criseyde* on the *Teseida* than has hitherto been recognized.

Perhaps the work is less about Narrative than narratives. Time and again, the sensitivity of the criticism of individual works astonishes and persuades. The *Gaynain*-poet's indication of every sensation, every thought and every move in the temptation scenes; the realization that *Piers Plowman* is a poem of voices in which time and objects have only a limited value; the fused cultural background which allows the dialogue between Dreamer and Knight in *The Book of the Duchess*; the continual frustration of the reader's expectations in *The Parliament of Fowls* - these are only a few of the perceptions that make the book so rewarding. Yet, although Chaucer undeniably defined (and refined) the activity of the poet within these traditions, and in the figure of the Narrator achieved "the first extraordinary self-consciousness in English literature", possibly he was not quite the polymath Boitani claims. In experience, yes; but did he read *Martianus Capella*, *Geoffrey de Vinsauf* in any detail? We can claim rather too much for Chaucer. As the search for multiplicity and ambiguity deepens, so correspondences become rather less likely. In what ways does May ridicule Derigen or Nicholas the Clerk of Oxford - only, surely, indirectly? And here, too, the formalist jargon occasionally intervenes: *typologies, binomial, oniric-poetic, homodiegetic and intradiegetic*. True, the terms are defined, but they get in the way. That canny old Engle in *The House of Fame* knew better:

S. S. Hussey
hard language and hard matere
's encombras for to here
Atones.
S. S. Hussey is professor of English at the University of Lancaster.

Speaker as subject

Browning and the Fictions of Identity
by E. Warwick Sillim
Macmillan, £15.00
ISBN 0 333 30056 4

No English poet received more adulation in his lifetime and in the years immediately following his death than Robert Browning, yet he must have felt that the golden trump was often blown harshly; for though he told his readers clearly enough what he was trying to do in his poetry and how it ought to be read, for a hundred years no one would believe him.

His poetry, he claimed, was "always dramatic in principle, and so many utterances of so many imaginary persons, not mine, yet his contemporaries scrutinized it for a 'message' or a philosophy to live by, and the scholars were soon at work searching out the poet in the poems and finding biographical revelations. In recent years, however, critical attention has shifted to the poems themselves, and *Browning and the Fictions of Identity* is entirely focused on the essence of the dramatic method, the poems as "action in character."

Such rigorous reading, which excludes all message-hunting and even concern with historical setting, produces some illuminating results. The analyses of "By the Fireside," "A Dramatic Funeral," and "Rabbi Ben Ezra," for instance, are fresh and persuasive. What Dr Sillim finds in Browning's best work is not a philosophy but a psychology: "a profound doubt about the function of human perception", a use of the monologue form to show that "any conception of experience is a product of consciousness, so that in it world and self are intertwined in an unconscious fiction of identity". In reading Browning's poems correctly, "we are not involved in the speaker's subject, but in the speaker as subject."

But when "Caliban upon Setebos" is read in this way, all reference to evolution excluded, the result is "the solipsistic conflict of an ego struggling to survive the threat of its own destructiveness," which obscures the way that some of Browning's poems were obviously conceived as bombs designed to explode at a particular moment. The analysis which is so successful when applied to the best poems of the middle period proves less convincing in the later ones in which Browning himself persistently obtrudes.

The Ring and the Book is seen as "a major aesthetic statement of nineteenth-century subjectivism," but Dr Sillim's attempt to reconcile this with his full awareness of the poem's "structure which predetermines an evaluation of its participants" shows ingenuity worthy of a better cause. His study of that bizarre climax to the casuistical monologues, "Rifine at the Fair," surprisingly ignores both the prologue and the epilogue. Admittedly, the central Don Juan section so beautifully exemplifies the "interweaving of perception and conceptualizing" which he has found in the earlier poems that it provides a valuable gloss on them, but his explication of this section does not attempt to make sense of the poem, Browning's personal nightmare, as a whole.

Such reservations are due to the lack of acknowledgement here of any change in Browning's manner of writing during the later period rather than to any doubts about Dr Sillim's success in identifying and describing the essential qualities of Browning's best poetry. That he has certainly done, in a book written with admirable economy. His summary of conclusions culminates in a brilliant analysis of "Child Roland" which finally solves a perennial puzzle: why that strange and typically Browning poem even though it is so different from all the others. His treatment of this poem is so persuasive because it has the whole of the preceding argument behind it, and it provides a convincing ending to the study.

J. W. Harper
J. W. Harper is senior lecturer in English at the University of York.



A youthful Oscar Wilde, as pictured by "Society" in March 1885, reproduced from *The Annotated Oscar Wilde*, edited with introductions and annotations by H. Montgomery Hyde. This large-format book is published on October 23 by Orbis Books at £15.00.

The true professors

The Occasions of Poetry: essays in criticism and autobiography
by Thom Gunn
Faber, £6.95
ISBN 0 571 11733 3

This volume consists of two introductions to anthologies, a lecture delivered at Princeton, several review articles and some autobiographical writings. The title is therefore appropriate, especially since the author has redefined one of its terms and succeeded in making it positive. He writes in his essay on Ben Jonson, "Yet in fact all poetry is occasional: whether the occasion is an external event like a birthday or a declaration of war, whether it is an occasion of the imagination, or whether it is in some sort of combination of the two". If Mr Gunn's criticism is occasional, it is occasioned by good literature and informed response; and surely that is what criticism ought to be about.

The celebratory quality Thom Gunn identifies in the poetry of Ben Jonson is a property of his own writing also. Take, for example, the essay here reprinted on Gary Snyder: "The best place to start with him has always been with the first poem of his first published book, since it is still one of the best he has written... It is a poem about feeling the cleanliness of the senses, and cleanliness, exactness, adequacy are the first impressions we have of the language and the rhythms". Further, Thom Gunn quotes from the verse of this American poet, still too little known over here, in a manner that should send his readers scurrying off to the bookshop or the library.

This is the manner of the critic who is also an artist: a combination too rare in the academic study of English. Surgery in British universities may be professed by surgeons, music by musicians; but the *litterateur* tends to dissociate himself from the practical application of his thought. Thom Gunn, on the other hand, is a poet and so can be judged by his published performances. It is true that he has chosen to be the last of the time in poetry, and such a role in our age between individual experience and disciplined form. But this very dichotomy seems to have sensitized Gunn's response to his fellow-romantics, several of them more successful in that particular mode than he has been himself.

The one quarrel that I have with this book is that the first half is missing. Where are the reviews that Thom Gunn wrote for *The London Magazine* and *The Yale Review* in the late 1950s and early 1960s? Nothing here dates from before the study of William Carlos Williams that appeared in *Encounter* in July, 1965. Surely it would have been of interest to republish the appreciations of J. V. Cunningham, Howard Nemerov, Richard Wilbur, Robert Bly and Alan Stephens; reputa-

tions that Gunn helped to create and that have deservedly survived? The ability to discern talent at the point of writing is the rarest of all gifts, and one not abundantly found in university schools of English. Further, in his role as contemporary reviewer Gunn was able to invoke the past - Donne, Rochester, Sir John Davis - in order to illumine the present and to be illuminated by it. It is the same way in which the Ballads are a distinct presence in the essay on Thomas Hardy and Albert Camus is, in the essay on Fulke Greville; but these, fortunately, are here reprinted.

The latter essay seems all the more remarkable when one reflects that the hedonistic Mr Gunn can hardly be expected to sympathize with the ascetic attitudes behind the verse of Fulke Greville. Nevertheless, this is the best discussion of that great and sombre poet so far. To be sure, there is little competition: topics of this nature do not lend themselves to routine investigation. Perhaps it is some such awareness that makes Mr Gunn, in the autobiographical pieces included in this volume, unduly deprecatory about his academic attainments. It is true that he did not gain a college scholarship to Cambridge or a PhD at Stanford, and that he was given tenure at Berkeley belatedly and held his post only for a year. Nevertheless, he is the true professional; not only in being a poet himself, but in the sense of continuity this gives him, and the zeal that it infuses into his discussion of individual texts.

This volume shows Thom Gunn to be in the line of such practitioners as Edwin Muir, Edward Thomas and Randall Jarrell. It is a true professor of literature.

Philip Hobsbaum
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BOOKS

ENGLISH

Dramatic act

King Richard III
edited by Antony Hammond
Methuen, £11.50 and £2.95
ISBN 0 416 17970 3 and 17980 0

"Methinks the truth should live from age to age," says the precocious Prince Edward in Shakespeare's play, shortly before his wicked uncle has him murdered in the Tower. If the play perpetuates a misrepresentation of the last Plantagenet King, it was Shakespeare's historical sources that cast Richard in the role of villain.

In particular, Sir Thomas More's strikingly vivid and ironic account of Richard as an unscrupulous usurper and tyrant, a portrayal served up by successive sixteenth-century chroniclers, provided Shakespeare's receptive dramatic imagination with graphic detail and incident. The infamy of Richard III was long established, and Shakespeare's achievement was to give dramatic shape to the historical material by means of a remarkable blend of imitation and inventiveness.

Richard III is the grandest of Shakespeare's early plays and everything about it suggests the young dramatist's ambitious and flamboyant virtuosity. Antony Hammond, in his new Arden edition, draws attention to its highly organized and formal structure, its ritualized action and avoidance of on-stage violence. It is the longest of Shakespeare's plays except *Hamlet* and calls for a cast which by Elizabethan standards is unusually large. Hammond's survey of its wide range of literary and dramatic sources illustrates how skillfully Shakespeare combined learned and popular traditions in the play.

The brilliant characterization of Richard himself, the earliest of Shakespeare's vehicles for bravura performance, incorporates the manipulative and conspiratorial figure of the Vice from the morality plays with the unprincipled individualism of Marlowe's tragic heroes. The ironic scheme of the plot, in which Richard's evil deeds fulfil the purposes of a larger design than his own, emulates Kyd's elaborate treatment of vengeance in *The Spanish Tragedy*. Moreover, Shakespeare's grammar-school Latin evidently enabled him to draw directly and substantially on Seneca's tragedies, particularly, as Harold Brooks has shown, in dramatizing the women's scenes. Other works that made significant contributions to the play include Spenser's *Faerie Queene*, *Mirror for Magistrates*, and Lyly's *Campaspe*.

"The harmonization of elements so variously derived", to borrow Harold Brooks's phrase, is a measure of Shakespeare's professional aspiration in this play.

Antony Hammond's introduction and notes are detailed and thorough. *Richard III* presents few problems for critical interpretation, although this edition helpfully clarifies some points of staging and generally elucidates the play in a way that discourages the view, still sometimes encountered, that it is essentially a piece of Tudor propaganda. The textual difficulties, however, are not so numerous and the evidence insufficient to permit a sure understanding of the origin, authority and relationship of the two earliest texts that preserve independent copy, the First Quarto (1597) and the First Folio (1623). There are some passages in the Quarto that do not appear in the Folio, and rather more material in the Folio not found in the Quarto, but the peculiar feature of the relationship between these two texts is the existence of hundreds of minor variants, synonyms, paraphrases, slight transpositions and grammatical differences that hardly affect the sense.

It is now traditionally accepted that the Quarto derives from a re-

BOOKS

ENGLISH

Fantasy or philology

The Road to Middle-Earth
by T. A. Shippey
Allen & Unwin, £9.95
ISBN 0 04 809018 2

The world is divided into two kinds of people, those who think that Tolkien's *The Lord of the Rings* is a work of great literary merit and interest and those who, in various degrees, don't. Professor Shippey undertakes to explain to the former how they are right and to encourage the latter to understand how they are wrong.

This is a labour of love but not of febrile enthusiasm: like his author, Professor Shippey has spent his maturing years knocking Anglo-Saxon into the heads of recalcitrant students, and this gives him a certain toughness of mind as well as a gloomy stoical view of life. So he is not dismayed by the chorus of praise is marred by discordant voices: these are people who have got too used to irony or at least to the "low imitative" style in fiction, and who cannot take anything seriously that does not embody an imitation of human life. Some pages therefore are spent explaining the mode and style of high romance, and the methods of interlarded narrative, and the mysterious reality at the heart of experience.

Professor Shippey's eschews allegorical interpretation, though he is not averse to drawing out some strands of meaning that run through *The Hobbit* and *The Silmarillion* as well as *The Lord of the Rings*, and he writes eloquently of the central inspiration of Tolkien's imaginative writing - the vision of a world without the solace of the Christian faith, a world of virtuous paganism sustained by courage, laughter and the inexplicable hopeless optimism, the creation of a "myth against discouragement" (page 154).

The heart of Professor Shippey's book, however, is not Tolkien's "inspiration" but the sources of his "inspiration" in the Anglo-Saxon, Middle English, Old Icelandic and other Germanic writings which were his reading-matter as a scholar. Shippey is uniquely well qualified to track his master to the finding-places of his fiction, and his book throws a solid bridge across the

apparent gulf between Tolkien's two worlds, the world of philology and the world of high fantasy. It is a fascinating read for anyone who is interested in the genesis of imaginative writing, and in some ways a subtler work of interpretation than its model, John Livingston Lowes's *The Road to Xanadu*. The emphasis is not so much upon the sources of narrative themes and motifs - though there are some shrewd comments on the influence of works as varied as *Ancrene Wisse*, *Sir Orfeo* and the *South English Legendary* as well as the Norse *Edna* - as upon the mysterious generative power of philology as such, the "love of words".

Tolkien begins, in a sense, with words, especially those "asterisk-words" which in philology he deduced to have existed and which pertain to a lost world of reality which also once existed. He creates an "asterisk-world", which is basically an excuse for inventing new languages, and out of the hidden and mysterious reality that lies at the heart of words is generated a corresponding order of reality. Place-names and personal names are of vital importance, and Shippey shows how Tolkien's writing is often an onomastic litany of suggestion, which speaks volumes to the initiate. Few will be unimpressed by the skill and subtlety with which Shippey picks out the threads in this tapestry of allusion, or by the similar skill and subtlety that went to their making. Everyone too who has had dealings with the old Germanic languages will recognize the excitement of watching the old dry bones move and live.

There is plenty here, then, to delight the Tolkien enthusiast, and almost enough to convince the sceptic. The fact that a man so intelligent and so sharply perceptive can find sustenance in so prolonged an immersion in the mist of his claims as an imaginative writer, and yet, as soon as Professor Shippey quotes what Tolkien wrote, as distinct from explaining how he came to write it, a sense of eerie disillusion and distaste comes over me. The old tricks with syntactical inversion, and with the use of interrogative and negative constructions without *do*, are so stale that they work no magic with me, and I have to confess that I have never managed more than a few chapters without a feeling of creeping sickness. The pleasure you take in Tolkien's writing, if you are encouraged to believe, is that which we would take in wise uncles, prone to say things we do not fully understand but which we know are good for us.

I cannot hear it.

BOOKS

ENGLISH

Lamb among the lions

Young Charles Lamb 1775-1802
by Winifred F. Courtney
Macmillan, £25.00
ISBN 0 333 31534 0

For volume one of a projected two-volume biography, Mrs Courtney's aim is avowedly modest. Noting that the last "definitive" biography of Lamb (by E. V. Lucas) appeared in its final edition over sixty years ago, and that "a new one is sorely needed", she insists that hers "does not pretend to fill that gap." "It is, rather," she writes, "an effort to provide the modern general reader in the man and writer from some new perspectives related to our own times."

Though she does, in fact, make use of new scholarly material that has become available since Lucas (most notably, perhaps, David Erdman's discovery of hitherto unknown copies of the *Abbeon* - a magazine where some of Lamb's earliest writings appeared) Mrs Courtney does not substantiate in what way she knows of Lamb's life. What she does do is offer us a series of portraits of his

friends - an astonishing range of contemporary literary figures whose association with the lonely and poverty-stricken East India Company clerk is the most telling memorial to his personal charm. Coleridge, Wordsworth, Southey and Godwin we know much about from other sources - though even here there are a variety of new insights and anecdotes, such as Lamb's role as correspondent during Coleridge's "manic episode" of 1797-8, or the association with Godwin during the tragic-comedy of his failed tragedy, *Antonia*, at Drury Lane. But Basil Montagu, Charles and Robert Lloyd, George Dyer, and Thomas Manning, if we have heard of them at all, are to most of us just names from the literary fringe of the period - shadowy figures with whom the "great" Romantics corresponded, got drunk, or quarrelled. Mrs Courtney's book gives charter and identity to this diverse circle - enabling us to distinguish the eccentric and scholarly virtues of Dyer and Manning from the poisonous Charles Lloyd, who found in sowing dissension between his supposed friends the kind of power that his feelings of literary inferiority desperately needed. Lloyd's greatest achievement in this vein was through his malicious and easily-recognizable portrait of Coleridge in his novel, *Edmund Oliver*, which involved the no-less pathologically insecure Coleridge in a quarrel with Lamb that was not healed for years.

What of Lamb himself, not yet established as the "Eliot" of the *Essays* or the co-author of the *Tales from Shakespeare*, but, from this perspective, the friend and observer of the shifting relationships of the most successful Romantics? We are given his upbringing, finding in his sister Mary, ten years older than himself, something of the mother-figure he failed to find in their own mother; his childhood terrors and fancies - exaggerated perhaps by the streak of family insanity that was finally to break out in tragedy when the over-strained Mary one day seized the carving-knife and before his eyes fatally stabbed their mother.

There are occasional weaknesses in scholarship (Kathleen Wheeler, for instance, convincingly cast doubt on Coleridge's account of the genesis of "The Lime-Tree Bower my Prison" and Lamb's visit with the Wordsworths) and the sense of historical background sometimes seems simplistic, but this is a fascinating and highly readable introduction to Lamb's entire circle.

Stephen Prickett
Stephen Prickett is reader in English at the University of Sussex.

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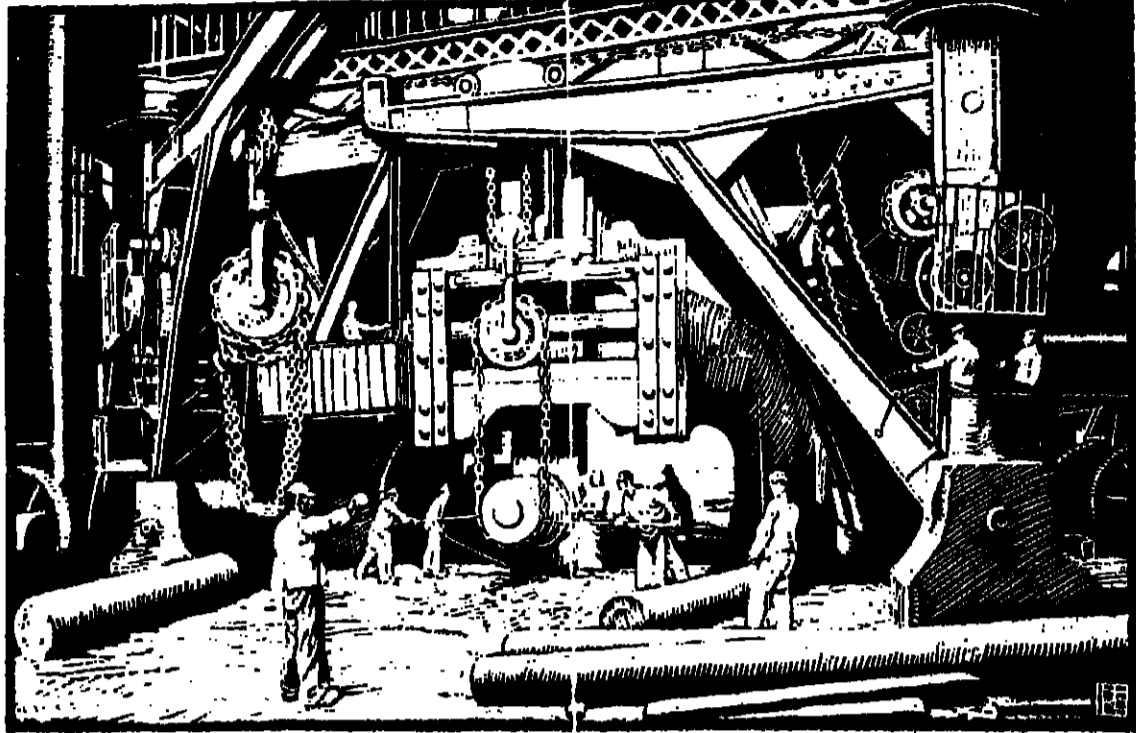
Noticeboard is compiled by Patricia Santinelli and Milla Goldie

Forthcoming events

Policy and Research in Adult Education, the second international colloquium is to be held at the University of Nottingham from July 10 to July 16. The theme of the colloquium concerns the challenges being posed by changing patterns of employment throughout the industrialized countries. Topics include: adult education and the changing industrial enterprise, adult education and national employment policies. Closing date for applications: 15th October. Further details from John Davies, School of Education, Nottingham University, Nottingham NG7 2RT.

"How to use video in staff training": one of five courses being put on by North East London Polytechnic is to be held on October 22 and on October 23 at Duncan House, High Street, Stratford. The emphasis of all courses is on the practical aspects of video, and covers aspects of interest to the private entrepreneur and also applications in industry, commerce and education. Fee: 195. Full details from the Short Course Unit, M.E.P., Asia House, 15/16 High Road, Chislehurst, Kent, SE26.

"Culture and the Media": a one day seminar, to be held on October 28 at the Scottish Hotel, 12, The Quadrant, Edinburgh. Papers include: "Media and the People's Voice" which is to be presented by staff and students of the school. Fee: 211. Further details from Dr John Fleck, Lecturer in Business and Leisure Studies, Scottish Hotel School, Strathclyde University, Curran Building, 94 Cathedral Street, Glasgow G4 6LJ.



This haoc of Fritz, the giant drop hammer designed by Alfred Krupp is included in an exhibition on science and technology in nineteenth century Germany which opens on October 15 at the Goethe Institute in Exhibition Road, London SW7. Knowledge gained by German scientists and engineers on study trips to England, then a more advanced country, is evident throughout the exhibition which closes on December 14.

Appointments

The Falkland Crisis, Shakespearean Tragedy, the Future of Taiwan and English Nationalism are among the topics chosen by a range of distinguished figures who will be delivering public lectures in the University of Kent's open lecture programme on Friday evenings in the Cornwell lecture theatre at 7pm. "Hearts and Bodies or the Architectural Metaphor" is to be delivered by Professor J. Rykwert of the University of Cambridge on October 22 and Sir Anthony Parsons, until recently UK permanent representative to the United Nations will speak on "The Falklands Crisis and Britain's Position in the UN" on November 5. Admission free.

General

Professor David Cecil Smith has been appointed a member of the Agricultural Research Council. He replaced Professor J. Heslop Harrison. He is a present Sirhobson professor of rural economy at Oxford University and a member of the Joint Consultative Board.

Chairs

Professor John Spence, head of Strathclyde University's department of mechanics of materials, has been appointed Trades House of Glasgow Professor of Mechanics of Materials at the University of Strathclyde. He succeeds Professor James M. Harvey, who has retired.

Honorary Fellowship

Honorary research fellow in the department of economics at Queen Mary College; Dr S. Aaronovitch.

Grants

Humanities and Social Sciences - Mrs V. Flagman - £25,750 from The Leverhulme Trust for a study of the origins and development of Parliamentary Control.

Universities

Bath: Biological Sciences - Dr S. J. Wainwright - £41,531 from The Mental Health Foundation for research into the Molecular Basis of Human Brain; Professor P. D. J. Welchman - £25,500 from the Science and Engineering Research Council for research into the Molecular Structure and Functional Diversity of Succinate Thiokinases.

Open University programmes

October 16 to October 22

- Saturday October 16: 6.00 General 474-58 BC: The Approach of Athens (1972) prog 1A. 6.30 The Greek World: A History (1972) prog 1B. 7.00 The Greek World: A History (1972) prog 1C. 7.30 The Greek World: A History (1972) prog 1D. 8.00 The Greek World: A History (1972) prog 1E. 8.30 The Greek World: A History (1972) prog 1F. 9.00 The Greek World: A History (1972) prog 1G. 9.30 The Greek World: A History (1972) prog 1H. 10.00 The Greek World: A History (1972) prog 1I. 10.30 The Greek World: A History (1972) prog 1J. 11.00 The Greek World: A History (1972) prog 1K. 11.30 The Greek World: A History (1972) prog 1L. 12.00 The Greek World: A History (1972) prog 1M. 12.30 The Greek World: A History (1972) prog 1N. 1.00 The Greek World: A History (1972) prog 1O. 1.30 The Greek World: A History (1972) prog 1P. 2.00 The Greek World: A History (1972) prog 1Q. 2.30 The Greek World: A History (1972) prog 1R. 3.00 The Greek World: A History (1972) prog 1S. 3.30 The Greek World: A History (1972) prog 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Universities continued

University College London Northern Committee RESEARCH ASSISTANT

The Northern Committee is seeking a Research Assistant with research experience in one or more of the following areas: History, Political Science, Legal History, English Literature, Knowledge of the English language an advantage. One year appointment, normally renewable for a second year. Commence on or as soon after 1 November 1982.

The appointee will be required to teach courses to preserve the standards of initial teacher training and to continue to participate in continuing professional development for secondary schools.

Applicants should possess a postgraduate qualification in TESOL and/or a minimum of two years' teaching experience in a secondary school in materials production in relation to TESOL in Development Countries and/or a variety of backgrounds.

LECTURER/SENIOR LECTURER IN EDUCATIONAL ADMINISTRATION

The appointee will be a member of a team of other lecturers teaching a two year programme in Educational Administration and Management. The programme will include the study of the history of education, the role of the state, the role of the school, the role of the teacher, the role of the parent, the role of the community, the role of the church, the role of the media, the role of the economy, the role of the technology, the role of the environment, the role of the culture, the role of the society, the role of the individual.

Salary scale: £14,980-25,015

Three-year contract, gratuity, support for approved research, pension, accommodation, family allowances, private medical insurance, leave, etc. Applications should be sent to the Secretary (Staffing), University of Papua New Guinea, Box 3350, University of Papua New Guinea, Port Moresby, Papua New Guinea.

Thames Polytechnic School of Electrical and Electronic Engineering SENIOR LECTURER IN ELECTRONIC ENGINEERING

A second honours degree in Electronics or Computer Science and a minimum of five years' experience in teaching and research in the field of electronics. The successful candidate will be required to teach and supervise students in the field of electronics and to contribute to the development of the department.

Salary scale: £11,007-21,550 inclusive

Further particulars and application forms are available from the Personnel Office, Thames Valley University, 900 High Wycombe Road, Uxbridge, Middlesex, UB8 3PH. Closing date: 15 November 1982.

Polytechnics

PLYMOUTH POLYTECHNIC FACULTY OF TECHNOLOGY RESEARCH ASSISTANTS

Applications are invited from candidates with a good honours degree in an appropriate subject for the following research projects: Department of Architecture: Air Infiltration and Condensation in Buildings; Department of Mechanical Engineering: Ship Manoeuvring Equipment Components; Department of Civil Engineering: Dynamic Performance of Structures.

Research assistants are expected to register for a higher degree with the CNAA. Appointments are for a period of two years with a possibility of extension to a third year (fixed term contract). Salary: £5,355-£8,039

Application forms to be returned by 10 November 1982 can be obtained with further particulars from the Personnel Office, Drake Circus, Plymouth, Devon, PL4 8AA.

THE GOVERNMENT OF HONG KONG has appointed a Committee to plan the establishment, by Statute, of a SECOND POLYTECHNIC IN HONG KONG

and the Committee now invites applications for the post of DIRECTOR at a monthly salary of HK\$39,000 (approx. £43,333 p.a.)

(this salary is subject to confirmation by the Government of Hong Kong)

The second Polytechnic will have an ultimate enrolment of the equivalent of 15,000 full-time students with an initial target of 8,000 to reach towards the end of the present decade. New buildings for the institution are to be planned and constructed as quickly as possible, but during the early stage of development some new courses will commence in rented premises.

It is intended that the study programmes of the second Polytechnic should be developed with a strong vocational flavour. The majority of courses will be at professional and higher technical levels, and a substantial number will be day-release and evening courses. There will also be degree courses, but the number of students on these courses will not exceed 30% of the total student population.

The second Polytechnic, like the existing institution, will be substantially funded by the Hong Kong Government, through the University and Polytechnic Grants Committee, but will nevertheless have a large measure of autonomy under its own governing Council, the majority of members of which will be drawn from the commercial and industrial sectors of Hong Kong. The Director will be a member of the governing Council and the chief executive of the Polytechnic.

Applicants should currently hold posts which carry high-level policy-making, organising and managerial responsibilities. Academic distinction, experience and up-to-date knowledge in the development and management of tertiary technical education are essential. Familiarity with the working of British or Commonwealth professional institutions would be an advantage.

The Committee has already commenced the planning of the second Polytechnic and a Director needs to be appointed as soon as possible in order to play a key planning role at an early stage. Applicants should therefore be in a position to take up the appointment by November of 1983 at the very latest.

It is intended to hold interviews in London on 14th, 16th and 18th December 1982 for those candidates included in the preliminary shortlist for this post. Applicants should therefore be available on at least one of these dates.

In addition to salary, there are generous fringe benefits including heavily subsidised housing, annual leave with passages, education allowances for children, medical and dental treatment benefits, etc. The initial appointment will be made on a fixed-term contract of four years, at the end of which a gratuity equal to 25% of salary earned over the whole contract period will be payable.

Application forms are obtainable from The Association of Commonwealth Universities (Apts), John Foster House, 36 Gordon Square, London WC1H 0PF. Completed forms should reach the Secretary to the Planning Committee, PO Box 86441, Tsim Sha Tsui Post Office, Hong Kong by Saturday, 13th November 1982. An additional copy should also be lodged with the Association of Commonwealth Universities.

Teesside Polytechnic Department of Business and Professional Studies The Department of Business and Professional Studies invites applications for the following posts:

PRINCIPAL LECTURER IN BUSINESS AND ADMINISTRATIVE STUDIES (BEC) Salary: £11,931-£19,290 per annum (work bar) to £15,018 per annum. Main duty: BEC Co-ordinator and related teaching.

LECTURER II IN ECONOMICS INCLUDING BUSINESS ORGANISATION Salary: £9,855-£11,984 per annum.

LECTURER II IN ECONOMICS INCLUDING QUANTITATIVE ECONOMICS LECTURER II IN QUANTITATIVE METHODS (ECONOMICS)

LECTURER II IN SECRETARIAL TECHNOLOGY TEMPORARY LECTURER GRADE II IN ACCOUNTANCY Appointment from as soon as possible to 31 August 1983. Further particulars and application forms are obtainable from:

The Personnel Section, Teesside Polytechnic, Borough Road, Middlesbrough, Cleveland, TS1 3BA. Tel: Middlesbrough (0457) 414121, Ext. 411. Closing date for applications: 28 October 1982.

LEEDS POLYTECHNIC School of Mechanical and Production Engineering LECTURER II IN METAL FORMING PROCESSES

Applications are invited from persons with high academic qualifications to teach the above subject to Honours Degree level and to contribute to the development of an MSc course in Production Engineering. For informal discussion please contact Head of School, Dr R. E. Schofield, Tel: 0532-482743. Salary Scale: £8,855 - £11,022.

Details from: The Services Officer, Leeds Polytechnic, Calverley Street, Leeds LS13HE. Tel: 0532-482355. Closing date: 5 November 1982. Please enclose S.A.S.

Coventry Lanchester Polytechnic DEPUTY DIRECTOR (Group 12 Vice Principal currently £23,031 per annum)

To succeed Dr. M. E. Foss who retires shortly. The post carries responsibility for the oversight of academic standards and development and strategic resources planning.

Application forms and further particulars available from the Director, Coventry (Lanchester) Polytechnic, Priory Street, Coventry CV1 5FB returnable by 8th November 1982.

An Equal Opportunity Employer.

SHEFFIELD CITY POLYTECHNIC DEPARTMENT OF BUILDING PRINCIPAL LECTURER IN CONSTRUCTION MANAGEMENT

Salary Scale - £11,931-£19,290 (bar) - £15,018 p.a. Applicants for this new position should possess relevant qualifications and suitable continuing and consultancy experience in teaching and research. The successful applicant will be required to teach on degree and higher technician courses and pursue a research interest.

Application forms and further details from the Personnel Office, Sheffield City Polytechnic, Main House, Fitzalan Square, Sheffield S1 2BB or by phoning 0742 20611, Ext. 367. Completed forms are to be returned by 24th November. Sheffield City Polytechnic is an Equal Opportunities Employer.

Huddersfield Polytechnic Department of Life Sciences PRINCIPAL LECTURER Ref: ACA/487/A

Salary: £11,931-£19,290 (bar) - £15,018 Applications are invited for the post of Principal Lecturer in Human Ecology. The successful candidate is likely to possess or demonstrate the following:

- 1. Wide experience of, and involvement in human environmental issues. 2. Substantial and current knowledge in Human Ecology. 3. Ability and preparedness to make an important academic and administrative contribution to the BSc (Hons) Human Ecology degree, and to take a leading role in its future development.

Further details and application forms should be returned by 11 November 1982, are available from the Personnel Office, The Polytechnic, Queensgate, Huddersfield HD1 3DH. Tel: 0484-22268, Ext. 2224. Previous applicants need not apply.

BRIGHTON POLYTECHNIC Department of Mathematics LECTURER II/ SENIOR LECTURER

To teach in Statistics and related disciplines on a range of degree courses and assist with course management and development.

Applicants should have a good Honours Degree and/or higher Degree and specialist knowledge in some area of Applied Statistics or Operational Research and have several years' relevant work experience. Teaching experience is desirable but not essential.

Salary: Senior Lecturer: £10,178-£12,816; Lecturer II: £8,855-£11,022. Further details and application forms may be obtained from the Personnel Office, Brighton Polytechnic, Moulsecomb, Brighton BN2 4AT. Tel: Brighton 633655, Ext. 287. Closing date: 12 November 1982.

Polytechnics continued Teesside Polytechnic Department of Civil and Structural Engineering LECTURER II/ SENIOR LECTURER IN CIVIL ENGINEERING

Applications are invited from candidates with professional experience in the field of Structural Engineering and Building.

What is so particular about this post is that it is a new one and will be given to a candidate who can offer a Design and Computing. Salary scale: £8,855 - £11,022 (work bar) = £11,022 p.a.

An appointment will be made on the Lecturer II band of the scale.

Application forms and further particulars are available from The Personnel Office, Teesside Polytechnic, Borough Road, Middlesbrough, Cleveland TS1 3BA. Tel: Middlesbrough (0457) 414121, Extension 4114. Closing date: 30 November 1982.

Prison Polytechnic SENIOR LECTURER IN PRODUCTION ENGINEERING

Applications are invited from honours graduates with research and/or industrial experience for the above post.

The successful candidate would participate in the production programme on the Production Management and Implementation of Advanced Manufacturing Systems at degree and Higher National/Diploma levels.

The Polytechnic in conjunction with industrial partners is involved in the development and implementation of advanced manufacturing systems for office automation and CAD/CAM. Substantial experience in these areas will be given to candidates who can contribute to these developments.

Salary scale: £10,178 - £11,022 (work bar) = £11,022 p.a. Application forms, quoting reference ACA/489, from the Personnel Office, Prison Polytechnic, Clifton Road, Preston PR1 2JG. Closing date: 5th November 1982.

University of Aberdeen Department of Chemistry RESEARCH FELLOW

A social scientist, with research experience and a higher degree, is required for an 80% funded project on the role and function of the family within the community. The post involves fieldwork with interviews with and observation of, middle class families.

The appointment will be for a period of five months (full-time) elsewhere in Scotland.

This is a two-year full-time post with a starting date as soon as possible. Salary within Range IA of the University of Aberdeen. Salary scale: £10,178 - £11,022 (work bar) = £11,022 p.a.

Further particulars and application forms from the Secretary to the University of Aberdeen, 100 Leith Road, Aberdeen AB9 8QJ. Closing date: 2 November 1982.

Hull College of Higher Education STUDENT FELLOWSHIP PRINTMAKING OR PHOTOGRAPHY

Applications are invited for student graduates who are interested in either printmaking or photography.

Colour printing may be included in the programme. The successful candidate will be asked to submit a portfolio of work. Further particulars and application forms are available from the Secretary to the Hull College of Higher Education, 100 Leith Road, Aberdeen AB9 8QJ. Tel: 0482 44808.

Colleges of Further Education Sabhal Mòr Ostaig Isle of Skye

POST OF PRINCIPAL

This is a College at present operating in informal Further Education in Gaelic and its related disciplines. The College intends to offer a 2-year Diploma Course in Business Studies and Modern Gaelic Studies from the Autumn of 1983.

In addition to the preliminary work for the course and supervising the ongoing work of the college his/her main duty would be the organisation of staff and teaching for the College's proposed 2-year diploma course to educate people for a career in the Highlands and Islands. For application forms and job description see below.

The successful candidate would participate in the development and implementation of advanced manufacturing systems for office automation and CAD/CAM. Substantial experience in these areas will be given to candidates who can contribute to these developments.

Salary scale: £10,178 - £11,022 (work bar) = £11,022 p.a. Application forms, quoting reference ACA/489, from the Personnel Office, Prison Polytechnic, Clifton Road, Preston PR1 2JG. Closing date: 5th November 1982.

Tha na stùireadairan am beachd tuaraidh ceart a phàighadh do'n duine a thèghear ma choinneamh a chomharran is eòlais. Tha dùil gun tèlach an obair roimh dhreaghadh 1982. Freagraigheach air neach air leas bh Ollthigh no Colaiche.

Neach sam bith aig a bheil uidheannan a' ghnòthach, a' ghrìobhadh no bruidheadh ri Donnchadh MacGualaire, Fear Cathrach, Sabhal Mòr Ostaig, 38 Lovat Road, Inverness.

HILTON LODGE SCHOOL OF LAW At Davy's College, 44 Cromwell Road, Hove. An Independent College of Further Education Principal: R. Bellerby, M.A., B.Sc.

DEPUTY COURSE DIRECTOR (LL.B.) The Hilton Lodge School of Law offers a small full-time course for the London University External LL.B. examinations, primarily for post 'A' level students from Davy's Colleges in London and Hove and, in addition, a part-time home study course is offered for students overseas (at the present time Hong Kong, Kuala Lumpur and Singapore).

In addition to a correspondence course lectures are given in the students' home country by our tutors, and the Deputy Course Director will be required to assist in the expansion and development of these courses, participating in both the teaching and administration.

The post will be initially part-time, leading to full-time as soon as possible.

Applications are invited from suitably qualified teachers who should be good Honours Graduates with appropriate professional and teaching qualifications. Applications should be made in writing, including a full C.V. and the names and addresses of telephone numbers of two academic referees. Applications should be addressed to Mrs. Susan Bucknall, LL.B., Carl, Ed., Barrister-at-Law, the Course Director and should be received no later than Wednesday, 20th October 1982.

Kent County Council Education Department Department of Art Design LECTURER II DANCE

Applications are invited for the post of Lecturer II in Dance. The successful candidate will have wide experience in teaching and research in the field of dance and will be able to teach a contemporary technique to an advanced level. Professional qualifications and relevant work experience would be an advantage but this post is primarily for a teacher with a commitment to teaching in higher education.

Colour printing may be included in the programme. The successful candidate will be asked to submit a portfolio of work. Further particulars and application forms are available from the Secretary to the Hull College of Higher Education, 100 Leith Road, Aberdeen AB9 8QJ. Tel: 0482 44808.

St. Hilda's College Oxford MCLLRATH JUNIOR FELLOWSHIP

The College invites applications from the following: (a) students who are currently studying in the United Kingdom or the Republic of Ireland; (b) students who are currently studying in the United Kingdom or the Republic of Ireland; (c) students who are currently studying in the United Kingdom or the Republic of Ireland.

Colleges of Higher Education AT GORDON HOUSE - TWICKENHAM SENIOR AUDIT ASSISTANT

S.O.1 £3,721-£9,284 p.a. Inclusive (July Review Pending)

Applications are invited from suitably qualified persons for this post which has specific responsibilities for the Internal Audit Work and sundry items of financial control within the West London Institute of Higher Education.

The position will be filled in the Administrative Block located at Gordon House, Twickenham but will also service our campus at Lancaster House, Isleworth, and will involve some inter-site travel between the Campuses and the computer centre of the Local Authority.

The post is normally full-time but might also be suitable for persons on early retirement from Local/County Government, Banking or Financial Organisation specialising in an Audit background. Hours are therefore negotiable within the above salary grading and will be paid pro-rata accordingly.

Closing date for receipt of application forms is 28th October, 1982. Application forms and further details available from: Assistant Registrar (Finance & Personnel), WEST LONDON INSTITUTE OF HIGHER EDUCATION, Gordon House, 300 St. Margaret Road, Twickenham, Middlesex. Tel: 01-891 0121 ext. 253.

Slough College of Higher Education Division of Continuing Education PRINCIPAL LECTURER

Applications are invited from graduates/professionally qualified individuals with substantial teaching experience.

Post available from 1 January 1983. The college has a powerful, modern computer system and substantial microcomputer based facilities.

Salary inclusive of area allowance, within the range: £15,951 (bar) - £19,290. Send S.A.S. for further details and application forms to be returned within 10 days of the date of this advertisement.

Vice Principal, Slough College of Higher Education, Wellington Street, Slough, SL1 1YG.

Ealing College of Higher Education RA IN GEOGRAPHY

Honour graduate with special interest in human geography and a minimum of two years' experience in teaching and research in the field of human geography. The successful candidate will be required to teach and supervise students in the field of human geography and to contribute to the development of the department.

The post is tenable for 10 months and could be taken up immediately. Salary on scale of London weighting. Applications should be sent to the Secretary, Ealing College of Higher Education, London W3 5HP. Closing date: 27 October 1982.

Lothian Regional Council Napier College of Commerce and Technology SENIOR LECTURER IN INSURANCE AND RISK MANAGEMENT

Salary: £11,931-£19,290 (bar) - £15,018 p.a. Applications are invited from graduates/professionally qualified individuals with substantial teaching experience.

Post available from 1 January 1983. The college has a powerful, modern computer system and substantial microcomputer based facilities.

Send S.A.S. for further details and application forms to be returned within 10 days of the date of this advertisement.

Colleges with Teacher Education Inner London Education Authority Avery Hill College

LECTURER II IN CRAFT DESIGN AND TECHNOLOGY

Required from January 1983 to join an existing department. The successful candidate should have substantial teaching experience in the field of craft design and technology and to be able to contribute to the development of the department.

Salary scale: £11,931-£19,290 (bar) - £15,018 p.a. Further details and application forms are available from the Secretary, Avery Hill College, London W3 5HP. Closing date: Friday 22nd October.

Canterbury College of Art School of Graphic Design

LECTURER II GRAPHIC DESIGN

Applications are invited for the post of Lecturer II in Graphic Design. The successful candidate will have a minimum of five years' experience in teaching and research in the field of graphic design and will be able to teach and supervise students in the field of graphic design and to contribute to the development of the department.

Salary scale: £11,931-£19,290 (bar) - £15,018 p.a. Further details and application forms are available from the Secretary, Canterbury College of Art, London W3 5HP. Closing date: Friday 22nd October.

Christ Church College of Higher Education Canterbury LECTURER II SENIOR LECTURER MATHEMATICS

Required for January 1983 and from a suitable candidate. The successful candidate will have a minimum of five years' experience in teaching and research in the field of mathematics and will be able to teach and supervise students in the field of mathematics and to contribute to the development of the department.

Salary scale: £11,931-£19,290 (bar) - £15,018 p.a. Further details and application forms are available from the Secretary, Christ Church College of Higher Education, London W3 5HP. Closing date: Friday 22nd October.

Lothian Regional Council Napier College of Commerce and Technology SENIOR LECTURER IN INSURANCE AND RISK MANAGEMENT

Salary: £11,931-£19,290 (bar) - £15,018 p.a. Applications are invited from graduates/professionally qualified individuals with substantial teaching experience.

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Send S.A.S. for further details and application forms to be returned within 10 days of the date of this advertisement.

Lothian Regional Council Napier College of Commerce and Technology SENIOR LECTURER IN INSURANCE AND RISK MANAGEMENT

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Post available from 1 January 1983. The college has a powerful, modern computer system and substantial microcomputer based facilities.

Miscellaneous

Educational Software

- If you are
- convinced of the positive contribution that CAL can make to education and training
- experienced in the design, development and assessment of educational software
- familiar with business education and/or science and technical education
- appreciative of the need for commercial involvement in the successful international propagation of educational software
- attracted to the idea of developing, in conjunction with conventional book-publishing activities, a total strategy for a successful software publishing programme
- then apply for the post of SOFTWARE PUBLISHER to Stephen Neal, Editorial Director, Pitman Books Ltd, 128 Long Acre, London WC2E 9AN.

Pitman Books



THE DIOCESE OF NEWCASTLE wishes to appoint an

Assistant Diocesan Secretary (Finance)

The responsibilities of the person appointed will include financial resources and budgetary control (1983 estimates total £1,750,000); stipends (180 clergy and accredited lay workers); committee work; and funds and properties held in trust for P.C.C.s.

Planning has begun for a computer installation; previous relevant experience would be an advantage.

Salary will be within Grade 1 (Civil Service H.E.O.). Non-confidentially superannuation. Relocation assistance.

This is a recently defined post, intended to enable the Diocesan Secretary to concentrate on internal and external communications, forward planning, policy initiation and coordination of Boards work.

Full details and an application form will be sent on request to David W. Hilde, Diocesan Secretary, Church House, Grainger Park Road, Newcastle upon Tyne NE4 6SX.

Scholarships

University of Queensland Australia
POSTGRADUATE RESEARCH SCHOLARSHIPS
 These awards are for full-time study in any department, except Law, and are administered by the Registrar.

Stipend: \$A\$ 2,200 plus allowances and travel costs.

Eligibility: Applicants must have a first class honours degree or equivalent. Successful candidates may receive a further \$A\$ 500 per annum.

Commencement date up to 1 July.

Duration: 2 years for M.A. and 3 years for Ph.D. students. In exceptional circumstances, extension may be granted.

Application forms and information are available from the Registrar, University of Queensland, Queensland 4072, Australia.

Librarians

ASSISTANT LIBRARIAN (ENGINEERING)

AP3/4/5
 Salary: £3,682-£7,375 (pending review)

Applications are invited from qualified persons holding a relevant degree or the post of Librarian (Engineering) in the Polytechnic Library.

Further particulars and application forms for the above post are available from the Personnel Officer, The Polytechnic of Wales, Mid Glamorgan, CF11 1D, Cardiff, or from the Chief Clerk, 20th October 1982.

The Polytechnic of Wales

Toeside Polytechnic LIBRARIAN GRADED

at S01/3, Post Reference P. LY.08

A Section Librarian is required for Library and Information duties within the Library of the Polytechnic. Candidates must be prepared to work in any section of the Library or to assist with information to their specialist qualifications.

Salary: £8,190-£9,528 per annum.

Application forms and further particulars are available from the Personnel Section, Toeside Polytechnic, Borough Road, Middlesbrough, Cleveland, Teeside, Middlesbrough, TS1 1BA, Extension 4174.

Closing date for applications: 5 November 1982.

Research & Studentships

DEPARTMENT OF MATHEMATICS STATISTICS AND OPERATIONAL RESEARCH

RESEARCH ASSISTANT/ DEMONSTRATOR

(£5,355-£5,580-£5,808-£6,039)

Good honours graduates in statistics (or mathematics with statistics) desirous of working for a higher degree are invited to apply for a research post in the following area:

"Non-normality in time series modelling (including multiple time series)" Ref E98

Further details and form of application from the Staff Officer, Trent Polytechnic, Burton Street, Nottingham NG1 4BU. Closing date 20 October 1982.

TRENT POLYTECHNIC NOTTINGHAM

University of Newcastle Upon Tyne School of Mathematics

RESEARCH ASSOCIATE

Application is invited for the temporary post of Research Associate in the School of Mathematics. The work is on solar differential equations and the application of mathematical models to solar activity. The post is for a period of two years, with the possibility of extension. The successful candidate will be expected to contribute to the teaching and supervision of students. Salary will be up to the £4,000 scale, depending on qualifications and experience.

Applications, including a curriculum vitae and the names of referees, should be lodged with the Staff Officer, School of Mathematics, Newcastle upon Tyne University, Newcastle upon Tyne NE4 7RU. Closing date: 15th November 1982.

Hull College of Higher Education RESEARCH STAFF

The College has an opening for an appointment to one of the following posts:

Research Officer - Computer Aided Design. The successful candidate will be responsible for the design and development of computer programs in the field of 3-D environmental graphics and graphics design.

Research Assistant - Energy Conservation. The successful candidate will be responsible for the design and development of computer programs in the field of energy conservation, including heat pumps, environmental control and heat storage to greenhouse structures.

Application forms and details may be obtained from the Staff Officer, Hull College of Higher Education, 104821 445506. R10

Courses

The Careers Research and Advisory Centre CRAC

SCIENCE TEACHING AND THE NEEDS OF INDUSTRY
 15 December 1982
 GREAT WESTERN ROYAL HOTEL, LONDON

A national conference on the teaching of mathematics, physics and other sciences in schools and universities in relation to the needs and views of industry.

Speakers from: Plessey, GEC and other companies; Dr Eric Laidlaw and Professor William Jolly from the University of London and views from Schools.

Details from: The CRAC Conference Office, Bateman Street, Cambridge CB2 1LZ. Tel: (0223) 364511.

Courses continued

The City University London TEACHING AND LEARNING IN HIGHER EDUCATION

The next entry for the 1982-83 course will start in January 1983. It will start in January 1983. It will start in January 1983.

For further information, please write to the Director of Education, The City University, London EC1Y 8LL.

Just Ask ADVISORY & COUNSELLING SERVICE DIRECTOR

Salary: £9,087 inclusive JNC scale 4L1.

Just Ask is a walk-in Counselling Service for students at the University of London. The service is open to all students and is run by a team of professional staff.

Further details and application forms are available from the Director of Education, The City University, London EC1Y 8LL.

Holidays and Accommodation

INDIA The Ultimate Experience

For holiday of a lifetime, Grand Railway Tour of India, from bustling cities of Bombay, Madras, Calcutta and Delhi, marvel at world's longest unbroken unbroken stretch of Kovalam and Puri. And then on to the monument of Eternal Love, the Taj Mahal. Scheduled flights, luxurious air conditioned railway coaches and plenty of stopovers for shopping and sightseeing.

For details, please write to: Destination East Holidays Limited, 60 Old Street, London EC1V 9AG. Tel: 01-250 3327 & 01-250 0046. A87AAATA.

Administration

Chief Administrative Officer and Clerk to the Governors

£9,261-£10,275 p.a.

Applicants for this post at CORNWALL TECHNICAL COLLEGE should be experienced in further and higher educational systems, possess sound financial experience and a knowledge of modern office systems. To take up duties on the 1st November, 1982, or as soon as possible thereafter.

The College offers a wide range of courses at all academic levels and is a GNAA validated institution.

It is to be re-designated the Cornwall College of Further and Higher Education, but is currently one of the largest Technical Colleges in the Country, with a full-time staff of 451 and a total of approximately 7,000 students. It occupies modern buildings on a 60 acre parkland site which it shares with the Camborne School of Mines and the Institute of Cornish Studies. In addition it incorporates Falmouth Technical College located in the centre of Falmouth.

Further details and application forms from The Principal, Cornwall Technical College, Redruth. Closing date 29th October, 1982. Please quote reference No. 122 when replying.



NATIONAL FOUNDATION FOR EDUCATIONAL RESEARCH IN ENGLAND AND WALES

Deputy Director

The Board of Management invites applications for the post of Deputy Director which will become vacant on the promotion of the present Deputy Director, Dr Clare Burrell, to the position of Director of the Foundation.

The Salary Scale will be within the range for full-time professional appointments and not less than £18,000 per annum.

Further information may be obtained from the Director, National Foundation for Educational Research, The Mere, Upton Park, SLOUGH, Berkshire, SL1 2DG.

Applications should be marked "DEPUTY DIRECTOR" on the envelope and addressed to the Chairman of the Foundation; Mr A. W. S. Hutchings, CBE, MA, FEIS, FCP of the address above, to reach him by 5 November 1982.

Overseas

English Language Centre

University of Petroleum & Minerals Dhahran, Saudi Arabia

The University of Petroleum & Minerals, Dhahran, Saudi Arabia invites applications for TESL positions (native fluency) for the academic year 1983-84 starting 1 September 1983.

Qualifications:
 M.A. TESL/Applied Linguistics or M.A. in TEFL or TESL or Post-graduate diploma in TEFL or TESL or Post-graduate certificate in Education (TESL, TEFL).

Experience:
 Minimum two years' teaching experience in TEFL/ESL overseas.

Description of Duties:
 Teaching English to post-secondary school students with elementary to intermediate proficiency at the University of Petroleum & Minerals.

Minimum regular contract for two years, renewable. Competitive salaries and allowances. Air conditioned and furnished housing provided. Free air transportation to and from Dhahran each year. Attractive educational assistance grants for school age dependent children. All earned income without Saudi taxes. Ten months duty each year with two months vacation with salary. There is also possibility of selection for the University's ongoing summer program with good additional compensation.

Apply with complete resume on academic and professional background, list of references and with certified/official copies of transcripts and degrees, including personal data, such as home and office addresses, telephone numbers and family status to:

Dean of Faculty & Personnel Affairs, University of Petroleum & Minerals, P.O. Box 144, Dhahran International Airport, Dhahran, Saudi Arabia.



Professor/Senior Lecturer Commercial Law

The post is tenable for 3 years commencing immediately and is renewable.

The location is at a newly-established University Campus in Nigeria, where the successful applicant will be involved in establishing and developing a new law faculty.

Essential tax free remuneration, living allowances and generous benefits in kind.

Full details are available from The Secretary, Holborn Law Tutors, Roupell Street, London SE1 6SS. Telephone: 01-276 6150.

UNIVERSITY OF NATAL

Department of Social Work Durban South Africa

CHAIR OF GERMAN STUDIES

(R25 100-R30 000 p.a.)

Applications are invited from suitably qualified persons, regardless of sex, religion, race, colour or national origin for appointment to the post of

LECTURER

Applications for the Lectureship should hold a Master's degree in Social Work with at least 3 years' practical experience in the field. Lecturing or teaching experience at a higher educational level will be an additional advantage. Applicants must be registered in terms of the Social and Asso. Workers' Act No. 110 of 1972.

Salary in the range: R12,507 to R22,178 per annum.

The commencing salary notch will be dependent on the qualifications and/or experience of the successful applicant in addition to a service bonus of 83% of the monthly salary is payable annually subject to Treasury Regulations.

Application forms, further particulars of the post and information on pension, medical aid, housing, and other benefits, should be sent to the Registrar, University of Natal, King George V Avenue, Durban, 4001, South Africa, with whom applications should be lodged by 15th November 1982.

University of the Witwatersrand Johannesburg South Africa

Department of Human Studies Comparative Literature

CHAIR IN ZOOLOGY

(R25 100-R30 000 p.a.)

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Faculty Exchange Centre

Non-profit, non-governmental organization of help in the field of research, teaching and learning. For details contact: Faculty Exchange Centre, 285 Virginia Ave., New York, N.Y. 10022, U.S.A.

PRINCETON UNIVERSITY DEPARTMENT OF HISTORY

JUNIOR POSITION IN MODERN BRITISH HISTORY

The Department of History at Princeton University solicits applications for a junior position in the History of Britain Since 1760.

Applicants should send a complete curriculum vitae and have three letters of recommendation forwarded by November 15th to:

Lawrence Stone, Chairman, British History Search Committee, Department of History, Princeton University, Princeton, New Jersey 08544 USA

University of the Witwatersrand Johannesburg South Africa

ADDITIONAL CHAIR IN ZOOLOGY

(R25 100-R30 000 p.a.)

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UNIVERSITY OF NATAL Department of Mechanical Engineering Durban South Africa

Applications are invited from suitably qualified persons, regardless of sex, religion, race, colour or national origin for appointment to the post of

PROFESSOR IN SOLID MECHANICS

Candidates must have a Ph.D. in Engineering and demonstrated interest in conducting research. Previous teaching and industrial experience is desirable. Successful applicants will be expected to teach undergraduate courses and supervise graduate student research projects.

Salary in the range is: R23,100-R30,265 per annum. The commencing salary notch will be dependent on the qualifications and/or experience of the successful applicant. In addition, a service bonus of 83% of one month's salary is payable subject to Treasury regulations.

Application forms, further particulars of the post and information on pension, medical aid, group insurance, staff bursary, housing loan and subsidy schemes, long leave conditions and travelling expenses are obtainable from the Secretary, South African Universities Office, Chichester House, 278 High Holborn, London WC1V 7HE or the Registrar, University of Natal, King George V Avenue, Durban, 4001, South Africa, with whom applications, on the prescribed form, must be lodged not later than 31 December 1982 quoting the Reference No. D60/82.

UNIVERSITY OF NATAL

Department of Electrical Engineering Durban

RESEARCH ASSISTANT

The incumbent will be a member of the team which is implementing optimal control of a laboratory turbo-generator by on-line computer, and may wish to use some of the results towards a higher degree. This post is for one year at a time, renewable for three years.

The salary scale attached to the post is: R20,000 per annum. The commencing salary notch will be dependent on the qualifications and/or experience of the successful applicant.

Application forms, obtainable from the Registrar, University of Natal, King George V Avenue, Durban, 4001, must be lodged with the Registrar not later than 15th November 1982 quoting reference number D67/82.

UNIVERSITY OF NATAL

Department of Engineering Durban

RESEARCH ASSISTANT

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LECTURER

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UNIVERSITY OF NATAL

Department of Electrical Engineering Durban

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Murdoch University

PERTH WESTERN AUSTRALIA

DEPUTY VICE-CHANCELLOR

The University wishes to appoint a full-time Deputy Vice-Chancellor to succeed Professor Alex Kerr, who is retiring in 1983.

The University is seeking candidates who hold or have held senior academic positions and who have an interest and experience in resource planning and management.

Enquiries and suggestions about this appointment should be addressed to the Secretary, Murdoch University, Murdoch, Western Australia, 6150, and should reach him by 15th November 1982.

General Vacancies

JUST ASK Advisory and Counselling Service

DIRECTOR

Salary: £9,087 inclusive JNC scale 4L1

JUST ASK is a walk-in Counselling Service for all ages, though the emphasis is on young people. The Director carries a heavy counselling case load and must have appropriate professional qualifications and experience in counselling, as well as the ability to lead and support the professional team of student and voluntary staff.

JUST ASK is a unit of London Central YMCA and serves its members as well as the public. Date of appointment early 1983.

Further details and application forms from: Betty Bolduc, Just Ask Advisory and Counselling Service, 112 St. James's, London WC1E 3JG. Tel: 01-250 4368. Closing date 28 October 1982.

UNIVERSITY OF NATAL

Department of Electrical Engineering Durban

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